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Office of Critical Minerals
and Energy Innovation



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Results Report

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Introduction

The 2025 U.S. Department of Energy (DOE), Office of Critical Minerals and Energy Innovation's (CMEI) Vehicle Technologies Office (VTO) Annual Merit Review (AMR) was held June 2-5, 2025, in Arlington, Virginia. Detailed reviews of 388 VTO-supported projects were completed by 243 peer reviewers. Exactly 935 individual review responses were received for the VTO technical reviews. Each project was reviewed by 2–7 independent reviewers, with a majority of projects having 4–5 reviewers.

The objective of the meeting was to review the accomplishments and plans for VTO-funded work over the previous 12 months, and provide an opportunity for industry, government, and academia to give inputs to DOE with a structured and formal methodology. The meeting also provided attendees with a forum for interaction and technology information transfer. VTO technology managers and leadership use the peer review results to inform their oversight of the projects and to inform future investments. Project leads receive reviewer scores and comments and are expected to address these comments in their future peer review presentations.

The peer review process followed the guidelines of the Peer Review Guide developed by CMEI. Each activity is reviewed every three years, at a minimum. However, VTO strives to have every activity reviewed every other year. The reviewers for the technical sessions were drawn from a wide variety of backgrounds, including current and former vehicle industry members, academia, government, and other expertise areas. Each reviewer was screened for conflicts of interest as prescribed by the Peer Review Guide.

Reviewers provided qualitative and quantitative feedback on VTO projects evaluated during the AMR. Qualitatively, reviewers offered written comments in response to a series of specific project evaluation questions. Quantitatively, reviewers provided numeric assessments for each of the same questions. These scores were organized and analyzed on both a project-level and subprogram-level basis. Tables summarizing the average numeric score for each question, with 4.0 being the highest possible score, by VTO subprogram portfolio are presented below.

DOE distributed written reviewer comments to project principal investigators. For brevity, individual reviewer comments are not included in the 2025 VTO AMR Results Report. Written reviewer comments submitted to DOE are available upon request. Please contact the VTO AMR team at VT-AMR@ee.doe.gov for more information.

Table I-1. Average Project Scores, By VTO Research & Development Subprogram

VTO Subprogram	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
Battery R&D (BAT)	3.48	3.45	3.47	3.37	3.45
Electrification (ELT)	3.35	3.30	3.27	3.24	3.30
Off-Road, Rail, Marine, and Aviation Technologies (ORMA)	3.42	3.38	3.41	3.26	3.38
Energy Efficient Mobility Systems (EEMS)	3.31	3.29	3.36	3.30	3.30
Materials Technology (MAT)	3.36	3.41	3.24	3.26	3.36
Vehicle Analysis (VAN)	3.44	3.50	3.26	3.04	3.43

Table I-2. Average Project Scores, By VTO Technology Integration Subprogram

VTO Subprogram	Objectives	Approach	Accomplishments	Collaboration	Weighted Average
Technology Integration (TI)	3.46	3.42	3.25	3.42	3.36

Evaluation Criteria—Research & Development Subprograms

In the technical research and development (R&D) subprogram sessions, reviewers were asked to respond to a series of specific questions regarding the breadth, depth, and appropriateness of the VTO R&D activities. The technical questions are listed below, along with appropriate scoring metrics. These questions were used for all formal VTO R&D project reviews.

Question 1: Approach to Performing the work— How would you rate the degree to which technical barriers are addressed? Is the project well designed, and is the timeline reasonably planned? (Weight = 25%)

4.0 – Outstanding. Sharply focused on critical barriers; difficult to improve significantly.

3.5 – Excellent. Effective; contributes to overcoming most barriers.

3.0 – Good. Generally effective but could be improved; contributes to overcoming some barriers.

2.5 – Satisfactory. Has some weaknesses; contributes to overcoming some barriers.

2.0 – Fair. Has significant weaknesses; may have some impact on overcoming barriers.

1.5 – Poor. Minimally responsive to project objectives; unlikely to contribute to overcoming the barriers.

1.0 – Unsatisfactory. Not responsive to project objectives; unlikely to contribute to overcoming the barriers.

Question 2: Technical Accomplishments and Progress— How would you rate the technical progress that has been made compared to the project plan? (Weight = 50%)

- 4.0 – Outstanding. Sharply focused on critical barriers; difficult to improve significantly.
- 3.5 – Excellent. Effective; contributes to overcoming most barriers.
- 3.0 – Good. Generally effective but could be improved; contributes to overcoming some barriers.
- 2.5 – Satisfactory. Has some weaknesses; contributes to overcoming some barriers.
- 2.0 – Fair. Has significant weaknesses; may have some impact on overcoming barriers.
- 1.5 – Poor. Minimally responsive to project objectives; unlikely to contribute to overcoming the barriers.
- 1.0 – Unsatisfactory. Not responsive to project objectives; unlikely to contribute to overcoming the barriers.

Question 3: Collaboration and Coordination Across Project Team— How would you rate the collaboration within the project team? Are there specific contributions made by industry, national laboratories, or other external entities? Are there areas where more collaboration is needed? (Weight = 12.5%)

- 4.0 – Outstanding. Close, appropriate collaboration with other institutions; partners are full participants and well-coordinated.
- 3.5 – Excellent. Good collaboration; partners participate and are well-coordinated.
- 3.0 – Good. Collaboration exists; partners are well-coordinated.
- 2.5 – Satisfactory. Some collaboration exists; coordination between partners could be significantly improved.
- 2.0 – Fair. A little collaboration exists; coordination between partners could be significantly improved.
- 1.5 – Poor. Most work is done at the sponsoring organization with little outside collaboration; little or no apparent coordination with partners.
- 1.0 – Unsatisfactory. No apparent coordination with partners.

Question 4: Proposed Future Research— How would you rate the proposed future research? Has the project clearly defined a purpose for future work? To what extent will future work likely achieve its targets? (Weight = 12.5%).

4.0 – Outstanding. Purpose of future work and likelihood of achieving future work targets clearly stated.

3.5 – Excellent. Effective; contributes to overcoming most barriers.

3.0 – Good. Generally effective but could be improved; contributes to overcoming some barriers.

2.5 – Satisfactory. Has some weaknesses; contributes to overcoming some barriers.

2.0 – Fair. Has significant weaknesses; may have some impact on overcoming barriers.

1.5 – Poor. Minimally responsive to project objectives; unlikely to contribute to overcoming the barriers.

1.0 – Unsatisfactory. Not responsive to project objectives; unlikely to contribute to overcoming the barriers.

Question 5: Relevance—Is the project relevant? Does the project support the overall VTO subprogram objectives? (Did not factor into overall weighted average numeric score)

Yes

No.

Question 6: Resources—How would you rate the resources of the project? Are the resources sufficient for the project to achieve the stated milestones in a timely fashion? (Did not factor into overall weighted average numeric score)

Excessive

Sufficient

Insufficient.

Evaluation Criteria—Technology Integration Subprogram

Reviewers for the Technology Integration (TI) technical session answered questions tailored to TI's 2025 AMR focus on improving fuel diversity, use of domestic fuel sources, reducing transportation energy costs for businesses and consumers, and enabling energy resiliency with affordable alternatives to conventional fuels that may face unusually high demand in emergency situations. These technical questions are listed below, along with appropriate scoring metrics.

Question 1. Project Objectives— How would you rate this project's degree of support for the overall Technology Integration (TI) objectives of improving fuel diversity, increasing local resiliency, and reducing greenhouse gas emissions through increasing alternative fuel use and transportation efficiency? (Weight = 25%)

4.0 – Outstanding. Project Objectives are sharply focused on supporting DOE/VTO/TI objectives. The project has a direct and substantial impact upon addressing barriers; difficult to improve project objectives significantly.

3.5 – Excellent. Project objectives are effective and substantially support DOE/VTO/TI objectives; project addresses a significant number of barriers; effectively contributes to program objectives.

3.0 – Good. Project objectives are generally effective and support DOE/VTO/TI objectives but could be improved; project addresses some barriers; contributes to program objectives.

2.5 – Satisfactory. Project objectives have some weaknesses and support DOE/VTO/TI objectives; project addresses some barriers; project may have some impact in achieving program objectives.

2.0 – Fair. Project objectives have significant weaknesses and minimally support DOE/VTO/TI objectives; project addresses few barriers; project may have a small impact on achieving program objectives.

1.5 – Poor. Project objectives are minimally responsive to DOE/VTO/TI objectives; project does not address barriers; project is unlikely to contribute materially to achieving program objectives.

1.0 – Unsatisfactory. Project objectives are not responsive to DOE/VTO/TI objectives; project fails to address any barriers; project is highly unlikely to contribute materially to achieving program objectives.

Question 2. Project Approach—How would you rate this project's approach for integrating advanced transportation technologies and practices to solve real-world challenges? (Weight = 25%).

4.0 – Outstanding. Project approach is sharply focused on achieving project objectives; difficult to improve project approach significantly.

3.5 – Excellent. Effective; project approach contributes to achieving the majority of project objectives.

3.0 – Good. Generally effective but project approach could be improved; contributes to achieving some of the project objectives.

2.5 – Satisfactory. Has some weaknesses; project approach contributes to achieving some project objectives.

2.0 – Fair. Has significant weaknesses; project approach may have some impact on achieving project objectives.

1.5 – Poor. Minimally responsive to project objectives; project approach is unlikely to contribute to achieving project objectives.

1.0 – Unsatisfactory. Not responsive to project objectives; project approach is highly unlikely to contribute to achieving project objectives.

Question 3. Project Accomplishments and Progress—How would you rate the project's progress and significant accomplishments to date? (Weight = 40%).

4.0 – Outstanding. Project demonstrates significant accomplishments; strong progress toward achieving both project and VTO-TI objectives; difficult to improve progress significantly.

3.5 – Excellent. Project demonstrates many accomplishments; very effective progress toward achieving overall project objectives and VTO-TI goals.

3.0 – Good. Project accomplishments are generally effective; progress is on schedule to contribute to some project objectives and VTO-TI goals.

2.5 – Satisfactory. Project has some accomplishments, but also displays some weaknesses; progress could be improved; contributes to some project objectives and VTO-TI goals.

2.0 – Fair. Project has few accomplishments and demonstrates significant weaknesses; rate of progress is slow; minimal contribution to project objectives or VTO-TI goals.

1.5 – Poor. Minimal demonstration of accomplishments; progress is significantly behind schedule; unlikely to contribute to project objectives or VTO-TI goals.

1.0 – Unsatisfactory. Project demonstrates no accomplishments; limited or no demonstrated progress; not responsive to project objectives.

Question 4. Collaboration and Coordination Among Project Team—How would you rate the level of collaboration within the project team and the degree to which the project team has identified and leveraged the proper connections to achieve its project goals? (Weight = 10%)

4.0– Outstanding. Sharply focused on collaboration among project team members; team is well-suited to effectively carry out the work of the project and have strong working relationships; no notable weaknesses.

3.5 – Excellent. Effective; team members meaningfully contribute to carrying out the work of the project, are well-suited to effectively carry out the work and have excellent working relationships.

3.0 – Good. Generally effective but could be improved; collaboration exists; team members are fairly well-suited to project work and have good working relationships.

2.5 – Satisfactory. Has some weaknesses; collaboration among team members is satisfactory for carrying out the work of the project; project partnerships, team members and working relationships could be improved.

2.0 – Fair. Has significant weaknesses; little collaboration exists and team lacks effective working relationships.

1.0 – Unsatisfactory. Little or no apparent collaboration between team members; project team is lacking critical expertise to effectively carry out the work of the project.

Project Scoring

R&D Subprogram Projects

For R&D subprogram sessions, reviewers were asked to provide numeric scores (on a scale of 1.0-4.0 in one-half point increments, as indicated above) for Question 1 through Question 4 of each formally reviewed activity. For each reviewed project, the individual reviewer scores for Question 1 through Question 4 were averaged to provide information on the project's question-by-question scoring. Scores for each of these four criteria were weighted using the formula below to create a Weighted Average for each project. This allows a project's question-by-question and final overall scores to be meaningfully compared against another project:

$$\text{Weighted Average}^* = [\text{Question 1 Score} \times 0.25] + [\text{Question 2 Score} \times 0.50] + [\text{Question 3 Score} \times 0.125] + [\text{Question 4 Score} \times 0.125]$$

Reviewer 1 **R&D subprogram Questions 5 and 6 were not factored in the Weighted Average Score calculation because their scoring scales were incompatible with Questions 1 through 4.*

Each reviewed activity has a corresponding bar chart representing that project's average scores for each of the four designated criteria. As demonstrated in Figure 1, a bullet and error line are included within the green bars representing the corresponding average and standard deviation of criteria scores for all of the reviewed projects in the same subprogram.

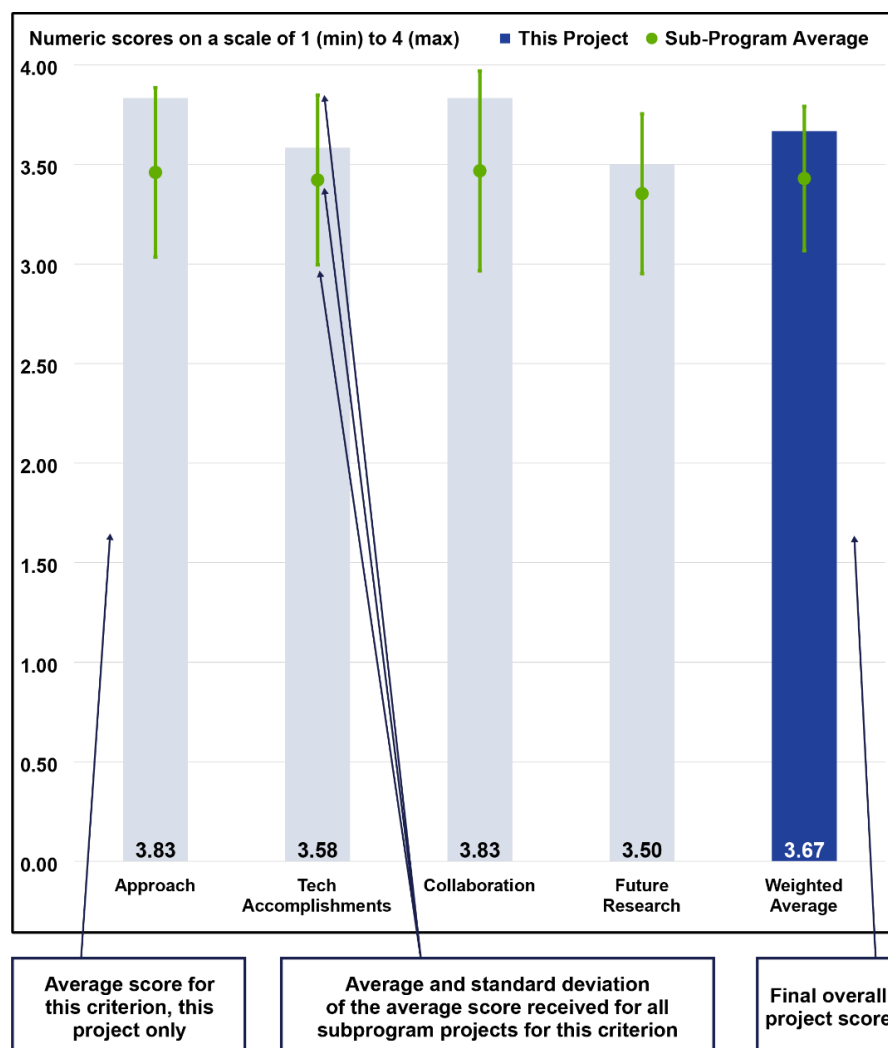


Figure 1. Sample Question 1 through Question 4 score averages, standard deviations, and overall Weighted Average for an R&D subprogram project

Reviewers were also asked to evaluate a given project's relevance and funding through Question 5 and Question 6, which were each scored on a different scale than Question 1 through Question 4. For the R&D subprogram sessions, while Question 1 through Question 4 were rated on a 1.0 to 4.0 scale in one-half point increments, Question 5 was rated on a yes or no scale, and Question 6 was rated on an excessive, sufficient, or insufficient scale. Consequently, Question 5 and Question 6 results were excluded from the Weighted Average calculation (as shown above) because the scoring scales are incompatible.

TI Subprogram Projects

For the TI subprogram session, reviewers were asked to provide numeric scores (on a scale of 1.0-4.0 in one-half point increments, as indicated above) for Question 1 through Question 4 of each formally reviewed activity. For each reviewed project, the individual reviewer scores for Question 1 through Question 4 were averaged to provide

information on the project's question-by-question scoring. Scores for each of these four criteria were weighted using the formula below to create a Weighted Average for each project. This allows a project's question-by-question and final overall scores to be meaningfully compared against another project:

$$\text{Weighted Average} = [\text{Question 1 Score} \times 0.25] + [\text{Question 2 Score} \times 0.25] + [\text{Question 3 Score} \times 0.40] + [\text{Question 4 Score} \times 0.10]$$

Each reviewed TI activity has a corresponding bar chart representing that project's average scores for each of the five designated criteria. As demonstrated in Figure 2, a bullet and error line are included within the green bars representing the corresponding average and standard deviation of criteria scores for all of the reviewed projects in the same subprogram.

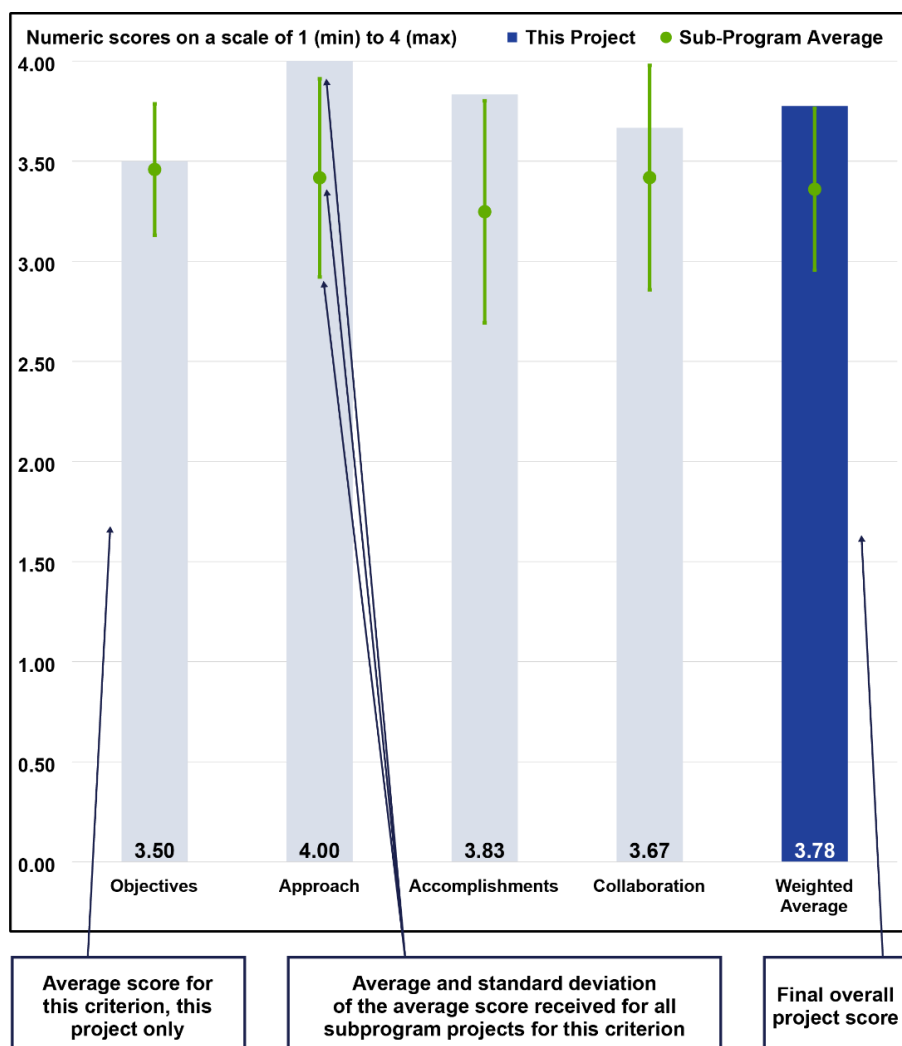


Figure 2. Sample Question 1 through Question 4 score averages, standard deviations, and overall Weighted Average for a TI subprogram project

Reviewer Responses

Text responses and numeric scores to the questions were submitted electronically through a web-based software application, PeerNet, operated by Oak Ridge Associated Universities (ORAU). Database outputs from this software application were analyzed and summarized to collate the multiple-choice and numeric scoring responses and produce the summary report.

This report summarizes numeric scores for each technical session and provides a graphical summary of scores for each individual technical activity. Each reviewed activity is identified by Presentation Number, followed by the Presentation Title, the Principal Investigator (PI), and the PI's organization. For each subprogram area, reviewed activities are ordered numerically by project number. Figure 3, below, provides an example project title.

Presentation Number: BAT028

Presentation Title: Materials Benchmarking Activities for Cell Analysis, Modeling, and Prototyping (CAMP) Facility

Principal Investigator: Wenquan Lu (Argonne National Laboratory)

Figure 3. Sample project title with Presentation ID, Presentation Title, PI, and PI organization

For each project, in addition to the PI, the presenter at the AMR is identified, along with the reviewer sample size. For some projects, the presenter at the AMR was a project team member rather than the PI.

The report is organized by technical subprogram area. Each technical area section includes a summary of that subprogram and a subprogram activities score summary table that includes page numbers.

1. Battery R&D

The Vehicle Technologies Office (VTO) funds research and development (R&D) of engines, batteries, power electronics, motors, materials, and transportation systems. VTO leverages the unique capabilities and world-class expertise of the national laboratory system to innovate new vehicle technologies. VTO is uniquely positioned to accelerate innovative transportation technologies due to strategic public-private research partnerships with industry (e.g., the U.S. DRIVE Partnership, the 21st Century Truck Partnership) that leverage relevant expertise. These partnerships prevent duplication of effort, focus U.S. Department of Energy (DOE) research on critical R&D barriers, and accelerate progress.

The Batteries program supports early-stage R&D of high-energy and high-power battery materials, cells, and battery development that can enable industry to significantly reduce the cost, weight, volume, and charge time of electric vehicle (EV) batteries. This activity is organized into three sub-activities: advanced battery materials research, advanced battery cell R&D, and battery recycling R&D. Advanced battery materials research is coordinated with the Critical Minerals Initiative and includes: early-stage research of new lithium-ion (Li-ion) cathodes, anodes, and electrolyte materials (currently accounting for 50% to 70% of the automotive battery cost) and the development of “beyond Li-ion” technologies, such as lithium (Li) metal anodes, solid-state electrolytes (SSEs), sulfur-based cathodes, and sodium-ion batteries; that have the potential to significantly reduce weight, volume, and cost reduction of over 80% from their 2008 baseline, with a target of \$60/kWh.

Advanced battery cell R&D includes early-stage R&D of new battery cell technology that contains new materials and electrodes that can reduce the overall battery cost, weight, and volume while improving energy, life, safety, and fast charging. Battery recycling R&D includes the development of innovative battery materials recycling and reuse technologies, and the Lithium-Ion Battery Recycling Prize, both of which aim to assure sustainability and domestic supplies of key battery materials and minerals.

Project Feedback

In this merit review activity, each reviewer was asked to respond to a series of questions, involving multiple-choice responses, expository responses where text comments were requested, and numeric score responses (on a scale of 1.0 to 4.0). In the pages that follow, the multiple choice and numeric score questions will be presented in graph form for each project. A table presenting the average numeric score for each question for each project is presented below.

Table 1-1 – Project Feedback

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
BAT028	Materials Benchmarking Activities for Cell Analysis, Modeling, and Prototyping (CAMP) Facility	Wenquan Lu (Argonne National Laboratory)	1-13	3.50	3.10	3.30	3.30	3.13
BAT054	Modeling of Amorphous Solid-State Conductors	Gerbrand Ceder (Lawrence Berkeley National Laboratory)	1-14	3.75	3.50	3.00	3.17	3.40
BAT085	Interfacial Processes-Diagnostics: Characterization and Modeling of Lithium-Metal Batteries	Robert Kostecki (Lawrence Berkeley National Laboratory)	1-15	3.33	3.75	3.75	3.25	3.69
BAT091	Characterization and Modeling of Li-Metal Batteries, First Principles Modeling and Machine Learning	Kristin A. Persson (Lawrence Berkeley National Laboratory)	1-16	3.83	3.50	3.50	3.33	3.44
BAT167	Process Development and Scale-Up of Advanced Active Battery Materials	Ozge Kahvecioglu (Argonne National Laboratory)	1-17	3.63	3.58	3.83	3.50	3.67

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
BAT168	Process Development and Scale-Up of Critical Battery Materials - Continuous Flow-Produced Materials	Trevor Dzwiniel (Argonne National Laboratory)	1-18	3.67	3.50	3.75	3.25	3.53
BAT225	Model System Diagnostics for High-Energy Cathode Development†	Guoying Chen (Lawrence Berkeley National Laboratory)	1-19	3.50	3.83	3.50	3.17	3.67
BAT280	Novel Chemistry Lithium-Selenium and Selenium-Sulfur Couple	Khalil Amine (Argonne National Laboratory)	1-20	3.75	3.50	3.38	3.25	3.45
BAT282	Development of High-Energy Lithium-Sulfur Batteries†	Dongping Lu (Pacific Northwest National Laboratory)	1-21	3.25	3.75	3.50	3.50	3.69
BAT285	Investigation of Sulfur Reaction Mechanisms	Enyuan Hu (Brookhaven National Laboratory)	1-22	3.50	3.50	3.00	3.25	3.34
BAT309	Mathematical Modeling of Beyond Lithium-Ion Batteries	Venkat Srinivasan (Argonne National Laboratory)	1-23	2.90	3.70	3.50	3.60	3.61
BAT315	Process R&D for Droplet-Produced Powdered Materials	Joe Libera (Argonne National Laboratory)	1-24	3.50	2.80	2.70	2.90	2.83
BAT360	Cathodes Beyond Lithium Nickel Manganese Cobalt Oxide (NMC) 811†	Arumugam Manthiram (University of Texas at Austin)	1-25	3.25	3.50	3.50	3.38	3.48

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
BAT362	High-Capacity S Cathode Materials†	Prashant Kumta (University of Pittsburgh)	1-26	3.75	3.00	3.25	3.38	3.14
BAT367	Multiscale Characterization Studies of Lithium Metal Batteries†	Peter Khalifah (Brookhaven National Laboratory)	1-27	3.63	3.75	3.75	3.50	3.72
BAT377	ReCell – Overview and Update	Jeffrey Spangenberg (Argonne National Laboratory)	1-28	3.58	3.50	3.88	3.38	3.56
BAT470	Process R&D Using Supercritical Fluid Reactors	Youngho Shin (Argonne National Laboratory)	1-29	3.25	3.42	3.50	3.33	3.46
BAT496	Silicon Consortium Project: Advanced Characterization of Silicon Electrodes†	Robert Kostecki (Lawrence Berkeley National Laboratory)	1-30	3.38	3.25	3.75	3.38	3.33
BAT497	Silicon Consortium Project: Electrochemistry of Silicon Electrodes†	Christopher Johnson (Argonne National Laboratory)	1-31	3.50	3.38	3.75	3.13	3.39
BAT498	Silicon Consortium Project: Next-Gen Materials for Silicon Anodes†	Nathan Neale (National Renewable Energy Laboratory)	1-32	3.38	3.63	3.75	3.25	3.56
BAT499	Silicon Consortium Project: Mechanical Properties of Silicon Anodes†	Katharine Harrison (National Renewable Energy Laboratory)	1-33	3.63	3.50	3.63	3.13	3.44

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
BAT501	Integrated Modeling of Electrolyte Properties and Machine Learning of Calendar Lifetime Prediction of Si Anode Batteries†	Kristin A. Persson (Lawrence Berkeley National Laboratory)	1-34	3.60	3.38	3.63	3.50	3.48
BAT523	Development of Long-Life Lithium and Sulfurized Polyacrylonitrile (SPAN) Cells†	Ping Liu (University of California San Diego)	1-35	3.50	3.70	4.00	3.80	3.73
BAT524	Advanced Electrolytes for Lithium Metal Batteries†	Chunsheng Wang (University of Maryland, College Park)	1-36	3.60	3.50	3.50	2.75	3.41
BAT555	Advanced Polymer Materials for Batteries	Zhenan Bao (SLAC National Accelerator Laboratory/ Stanford University)	1-37	3.63	3.40	3.70	3.60	3.51
BAT569	Earth-Abundant Cathode Active Materials for Li-Ion Batteries	Jason Croy (Argonne National Laboratory)	1-38	3.75	3.25	3.75	3.25	3.41
BAT570	Cation-Disordered Cathode Materials (DRX+) - Overview and Progress Update	Gerbrand Ceder (Lawrence Berkeley National Laboratory)	1-39	3.40	3.50	3.63	3.50	3.58
BAT571	ReCell Center-Direct Recycling of Materials	Albert Lipson (Argonne National Laboratory)	1-40	3.30	3.40	3.40	3.20	3.38

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
BAT572	ReCell Center-Advanced Resource Recovery	Yaocai Bai (Oak Ridge National Laboratory)	1-41	3.67	3.20	3.10	3.20	3.21
BAT573	ReCell Center-Design for Sustainability	Kandler Smith (National Renewable Energy Laboratory)	1-42	3.63	3.50	3.33	3.50	3.52
BAT574	ReCell Center-Modeling and Analysis	Sabine Gallagher (Argonne National Laboratory)	1-43	3.38	3.50	3.50	3.63	3.55
BAT576	Solid State Batteries with Long Cycle Life and High Energy Density	Haegyum Kim (Lawrence Berkeley National Laboratory)	1-44	3.00	3.50	3.63	3.38	3.47
BAT577	Low-Pressure All-Solid-State Cells	Tony Burrell (National Renewable Energy Laboratory)	1-45	3.63	2.63	3.38	3.00	2.86
BAT578	Stable Solid-State Electrolyte and Interface for High-Energy Density Lithium-Sulfur Battery	Dongping Lu (Pacific Northwest National Laboratory)	1-46	3.50	3.50	3.25	3.25	3.47
BAT579	Multifunctional Gradient Coatings for Scalable High-Energy Density Sulfide-Based Solid-State Batteries	Justin Connell (Argonne National Laboratory)	1-47	3.50	3.38	3.38	3.38	3.41

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
BAT580	Thick Selenium-Sulfur Cathode Supported Ultra-thin Sulfide Electrolytes for High-Energy All-Solid-State Batteries	Guiliang Xu (Argonne National Laboratory)	1-48	3.00	3.50	3.50	3.50	3.50
BAT581	Precision Control of Lithium Surfaces for Solid-State Batteries	Andrew Westover (Oak Ridge National Laboratory)	1-49	2.88	3.08	3.08	2.92	3.04
BAT582	Inorganic-Polymer Composite Electrolytes with Architecture Design for Lithium Metal Solid-State Batteries	Enyuan Hu (Brookhaven National Laboratory)	1-50	3.33	3.13	2.88	3.00	3.02
BAT583	Development of All-Solid-State Battery Using Anti-Perovskite Electrolyte	Zonghai Chen (Argonne National Laboratory)	1-51	3.33	3.50	3.50	3.17	3.42
BAT584	Integrated Atomic-, Meso-, and Micro-Scale Diagnostics of Solid-State Batteries†	William Chueh/Yi Cui (SLAC National Accelerator Laboratory/Stanford University)	1-52	3.70	3.17	3.00	3.00	3.17
BAT605	Silicon Consortium Project: Next Generation Electrolytes for Silicon Anodes†	Gabe Veith (Oak Ridge National Laboratory)	1-53	3.50	3.50	3.70	3.20	3.54

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
BAT606	VTO High-Performance Computing Cluster†	Ray Grout (National Renewable Energy Laboratory)	1-54	3.00	3.63	3.75	3.50	3.59
BAT607	Processing and Scale-Up of High Energy Density Cobalt-Free Cathodes	Ilias Belharouak (Oak Ridge National Laboratory)	1-55	3.63	3.00	2.79	3.21	3.00
BAT608	Cathode-Electrolyte Interphase (CEI) Consortium (Thrust 1): Model Cathode Materials for Next-Generation Li-Ion Batteries†	Jie Xiao (Pacific Northwest National Laboratory)	1-56	3.50	3.50	3.63	3.25	3.52
BAT609	Cathode-Electrolyte Interphase (CEI) Consortium (Thrust 2): Electrolytes and CEI at High Voltages†	Jordi Cabana (Argonne National Laboratory)	1-57	3.50	3.63	3.50	3.50	3.56
BAT610	Cathode-Electrolyte Interphase (CEI) Consortium (Thrust 3): Characterization and Modeling to Understand CEI†	Amy Marschilok (Brookhaven National Laboratory)	1-58	2.83	3.63	3.50	3.38	3.55

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
BAT619	The Role of Thermodynamics and Kinetics on the Coulombic Efficiency of Lithium Metal Batteries with FEC and DME-based Electrolytes	Yang Shao-Horn (Massachusetts Institute of Technology)	1-59	3.63	3.00	3.17	3.00	2.98
BAT620	Lithium Metal Anode Stability Against Soft and Hard Solid Electrolytes	Nitash Balsara (Lawrence Berkeley National Laboratory)	1-60	3.50	3.50	3.63	3.50	3.55
BAT622	Thin Composite Solid Electrolyte for Li Metal Batteries	Chunsheng Wang (University of Maryland, College Park)	1-61	3.50	3.83	3.33	3.50	3.65
BAT623	Optimizing Cathode Architecture for Solid-State Li Metal-Sulfur Batteries	Eric Wachsman (University of Maryland, College Park)	1-62	3.63	3.50	3.17	3.50	3.46
BAT624	Scalable Noble-metal-free Interlayer Design for Sheet-type Dendrite-free Solid-state Lithium Metal Batteries	Yan Yao (University of Houston)	1-63	3.50	3.50	3.88	3.50	3.58
BAT625	Development of High Energy Density All Solid-State Li Batteries Enabled through Optimized Electrochemical Interface and Engineering Cell Designs	Deyang Qu (University of Wisconsin, Milwaukee)	1-64	3.63	3.38	3.25	3.38	3.39

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
BAT626	Development of Thin, Robust, Lithium-Impenetrable, High-Conductivity, Electrochemically Stable, Scalable, and Low-Cost Glassy Solid Electrolytes	Steve W. Martin (Iowa State University)	1-65	3.50	3.38	3.63	3.38	3.47
BAT627	Developing Materials to Enable High-Energy-Density Cathode and Stable Li Anode for Solid-State Li-S Batteries	Donghai Wang (Southern Methodist University)	1-66	3.67	3.67	3.67	3.67	3.63
BAT628	Molecular Ionic Composite Solid Electrolytes for Long-Cycling and High Voltage Li-Metal Batteries	Louis Madsen (Virginia Polytechnic Institute)	1-67	3.33	3.67	3.33	3.67	3.63
BAT629	Stable Sulfide-based Anode-Free and Anode-Limited All-Solid-State Lithium Battery	Puru Jena (Virginia Commonwealth University)	1-68	3.50	3.33	3.67	3.33	3.38
BAT630	Blocking Li Metal Dendrites In Solid Electrolytes With Ion-Exchange Induced Residual Stresses	Brian W. Sheldon (Brown University)	1-69	3.63	3.50	3.83	3.50	3.54
BAT634	A Novel Integrated End-to-end Processing of End-of-Life EV Batteries for Remanufacturing of New EV Cells†	Anthony Roger (Cirba Solutions)	1-70	3.50	3.50	3.75	3.50	3.56

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
BAT636	An Environmentally Sustainable Solution to Completely Recycle and Upcycle Lithium-Ion Battery Components†	Xiaofang Yang (Princeton NuEnergy)	1-71	3.75	3.75	3.75	3.50	3.66
BAT638	Supplying Refined Battery Materials into the U.S. EV Battery Supply Chain by Synergizing Lithium-Ion Battery Recycling with Mine Waste Reclamation†	Lei Pan (Michigan Technical University)	1-72	3.63	3.50	3.88	3.50	3.61
BAT639	Advanced Separation and Processing Technologies for an Integrated Lithium-Ion Battery Recycling System†	Ryan Melsert (American Battery Technology Company)	1-73	3.50	3.50	3.63	3.38	3.53
BAT (ELT303)	Second-Life Battery Solar and Storage Facility Demonstration Enabled by Advanced State of Health Tracking†	Joe Lacap (RePurpose Energy Inc.)	1-74	3.17	3.50	3.50	3.67	3.52
BAT (ELT304)	Low-Cost and Scalable Second Use Battery Demonstration in Central California for Equitable Domestic Manufacturing and Job Growth†	Antoni Tong (Smartville Inc.)	1-75	3.50	3.17	3.17	3.50	3.21

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
BAT (ELT305)	Second-life Battery in Mobile EV Charging Application for Rural Transportation (SMART)†	Pingen Chen (Tennessee Tech University)	1-76	3.75	3.75	3.50	3.75	3.66
BAT (ELT306)	Adaptive Second-Use Battery Utilization with Different Degradation Levels for EV Charging Stations and Power Grid†	Jaber Qahouq (University of Alabama)	1-77	3.75	3.50	3.50	3.75	3.59
BAT (ELT307)	13MW Pilot Second-Use Batteries Incorporating Module Level Power Conversion to Improve Battery Safety/ Performance†	Seth Kahn (Element Energy, Inc.)	1-78	3.47	3.50	2.00	3.75	3.41
Overall Average				3.48	3.45	3.47	3.37	3.45

† Denotes a poster presentation.

Presentation Number:

BAT028

Presentation Title:

Materials Benchmarking Activities for Cell Analysis, Modeling, and Prototyping (CAMP) Facility

Principal Investigator:

Wenquan Lu, Argonne National Laboratory

Presenter

Wenquan Lu, Argonne National Laboratory

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 40% of reviewers felt that the resources were sufficient, 40% of reviewers felt that the resources were insufficient, 20% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT028_Lu_2025_o.pdf

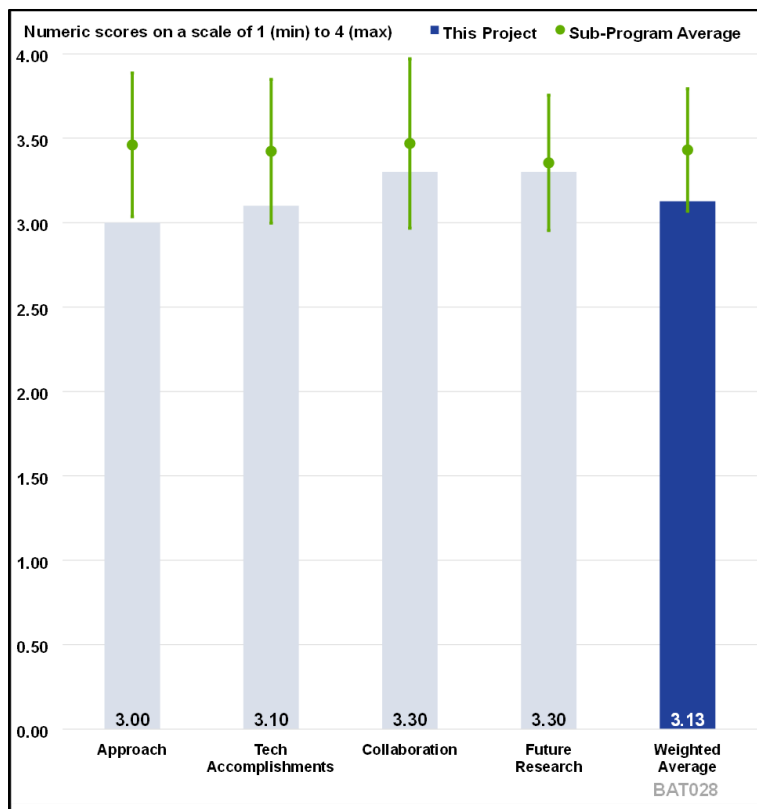


Figure 1-1 - Presentation Number: BAT028 Presentation Title: Materials Benchmarking Activities for Cell Analysis, Modeling, and Prototyping (CAMP) Facility Principal Investigator: Wenquan Lu, Argonne National Laboratory

Presentation Number:

BAT054

Presentation Title:

Modeling of Amorphous Solid-State Conductors

Principal Investigator:

Gerbrand Ceder, Lawrence
Berkeley National Laboratory

Presenter

Gerbrand Ceder, Lawrence
Berkeley National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

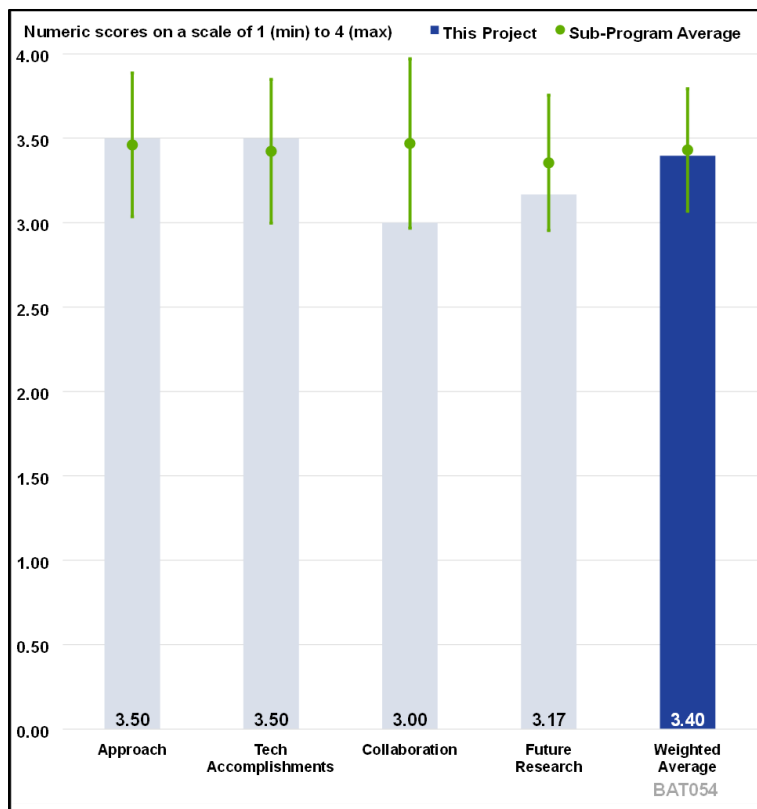


Figure 1-2 - Presentation Number: BAT054 Presentation Title: Modeling of Amorphous Solid-State Conductors Principal Investigator: Gerbrand Ceder, Lawrence Berkeley National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT054_Ceder_2025_o.pdf

Presentation Number:

BAT085

Presentation Title:

Interfacial Processes- Diagnostics: Characterization and Modeling of Lithium-Metal Batteries

Principal Investigator:

Robert Kostecki, Lawrence Berkeley National Laboratory

Presenter

Robert Kostecki, Lawrence Berkeley National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

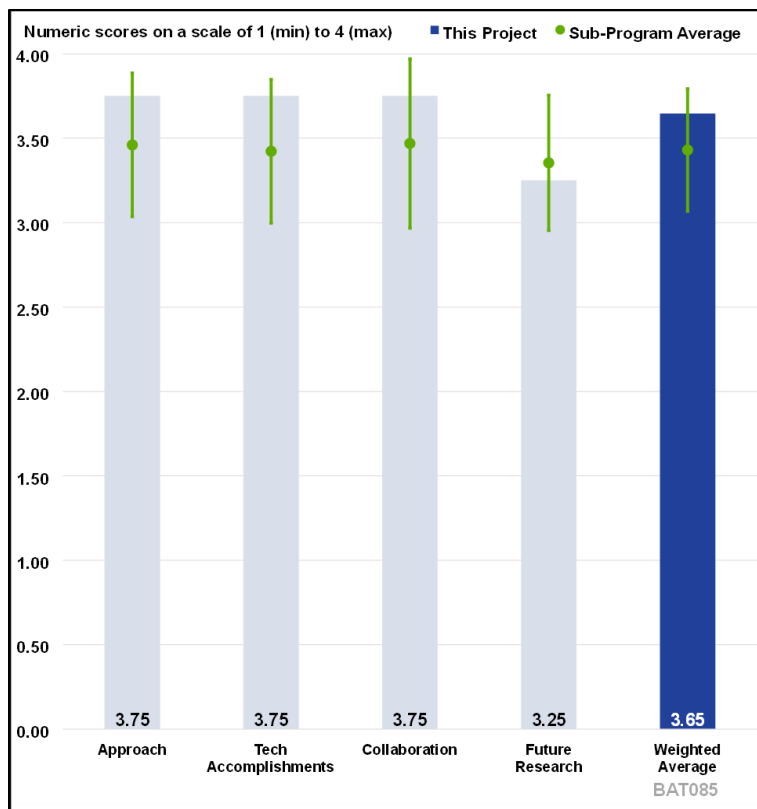


Figure 1-3 - Presentation Number: BAT085 Presentation Title: Interfacial Processes- Diagnostics: Characterization and Modeling of Lithium-Metal Batteries Principal Investigator: Robert Kostecki, Lawrence Berkeley National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT085_Kostecki_2025_o.pdf

Presentation Number:

BAT091

Presentation Title:

Characterization and Modeling of Li-Metal Batteries, First Principles Modeling and Machine Learning

Principal Investigator:

Kristin A. Persson, Lawrence Berkeley National Laboratory

Presenter

Kristin A. Persson, Lawrence Berkeley National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

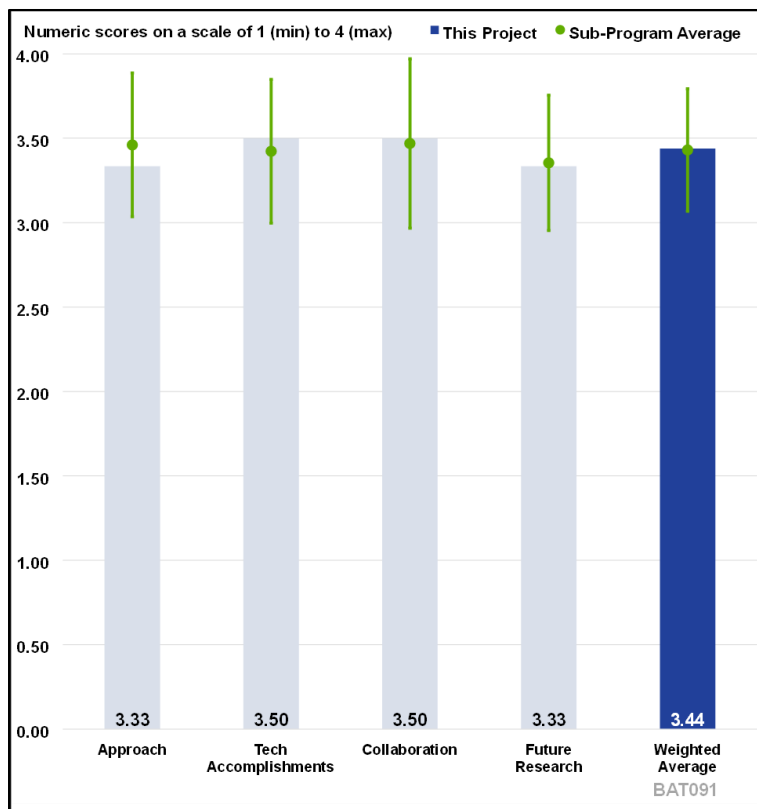


Figure 1-4 - Presentation Number: BAT091 Presentation Title: Characterization and Modeling of Li-Metal Batteries, First Principles Modeling and Machine Learning Principal Investigator: Kristin A. Persson, Lawrence Berkeley National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT091_Ceder_2025_o.pdf

Presentation Number:

BAT167

Presentation Title:

Process Development and Scale-Up of Advanced Active Battery Materials

Principal Investigator:

Ozge Kahvecioglu, Argonne National Laboratory

Presenter

Ozge Kahvecioglu, Argonne National Laboratory

Reviewer Sample Size

A total of six reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

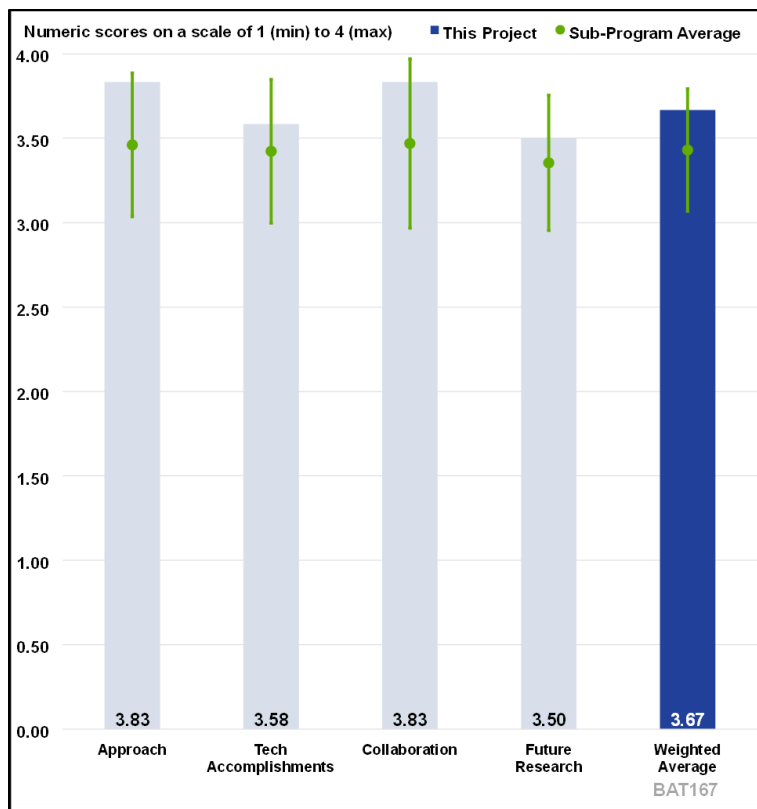


Figure 1-5 - Presentation Number: BAT167 Presentation Title: Process Development and Scale-Up of Advanced Active Battery Materials Principal Investigator: Ozge Kahvecioglu, Argonne National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT167_Kahvecioglu_2025_o.pdf

Presentation Number:

BAT168

Presentation Title:

Process Development and Scale-Up of Critical Battery Materials - Continuous Flow-Produced Materials

Principal Investigator:

Trevor Dzwiniel, Argonne National Laboratory

Presenter

Trevor Dzwiniel, Argonne National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT168_Dzwiniel_2025_o.pdf

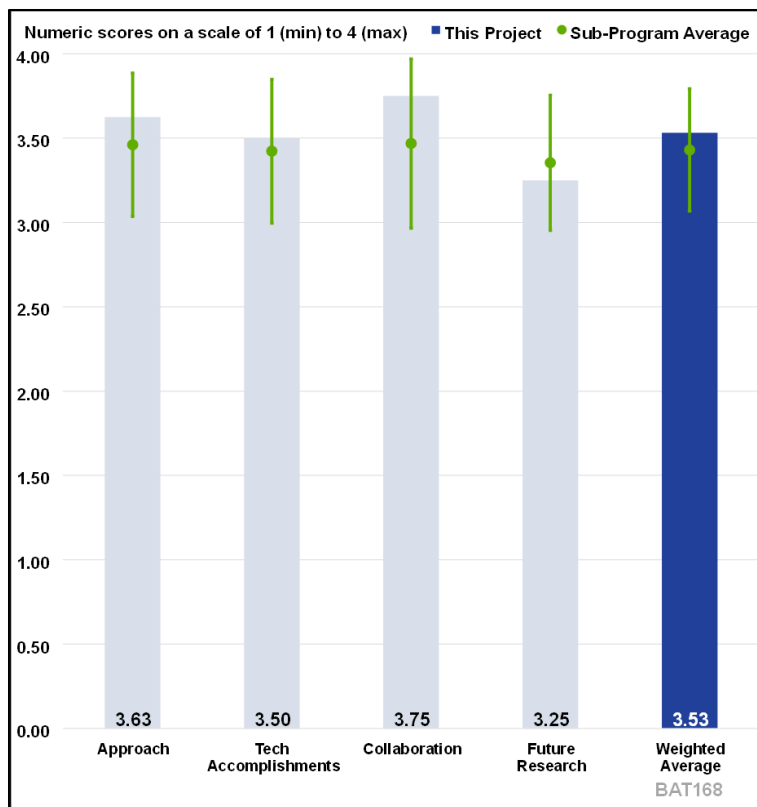


Figure 1-6 - Presentation Number: BAT168 Presentation Title: Process Development and Scale-Up of Critical Battery Materials - Continuous Flow-Produced Materials Principal Investigator: Trevor Dzwiniel, Argonne National Laboratory

Presentation Number:

BAT225

Presentation Title:

Model System Diagnostics for High-Energy Cathode Development

Principal Investigator:

Guoying Chen, Lawrence Berkeley National Laboratory

Presenter

Guoying Chen, Lawrence Berkeley National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT225_Chen_2025_p.pdf

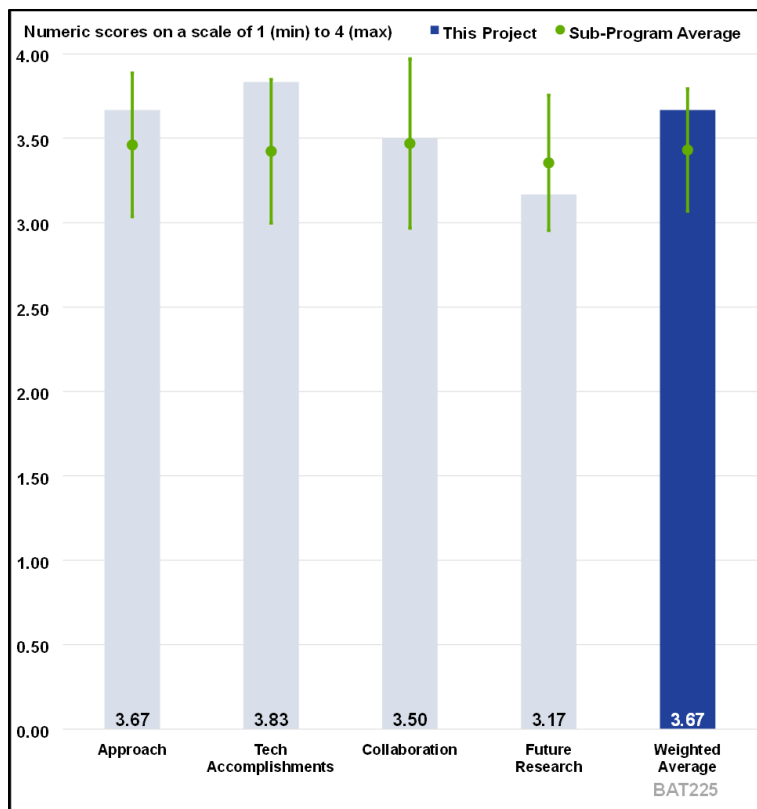


Figure 1-7 - Presentation Number: BAT225 Presentation Title: Model System Diagnostics for High-Energy Cathode Development Principal Investigator: Guoying Chen, Lawrence Berkeley National Laboratory

Presentation Number:

BAT280

Presentation Title:

Novel Chemistry Lithium-Selenium and Selenium-Sulfur Couple

Principal Investigator:

Khalil Amine, Argonne National Laboratory

Presenter

Khalil Amine, Argonne National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

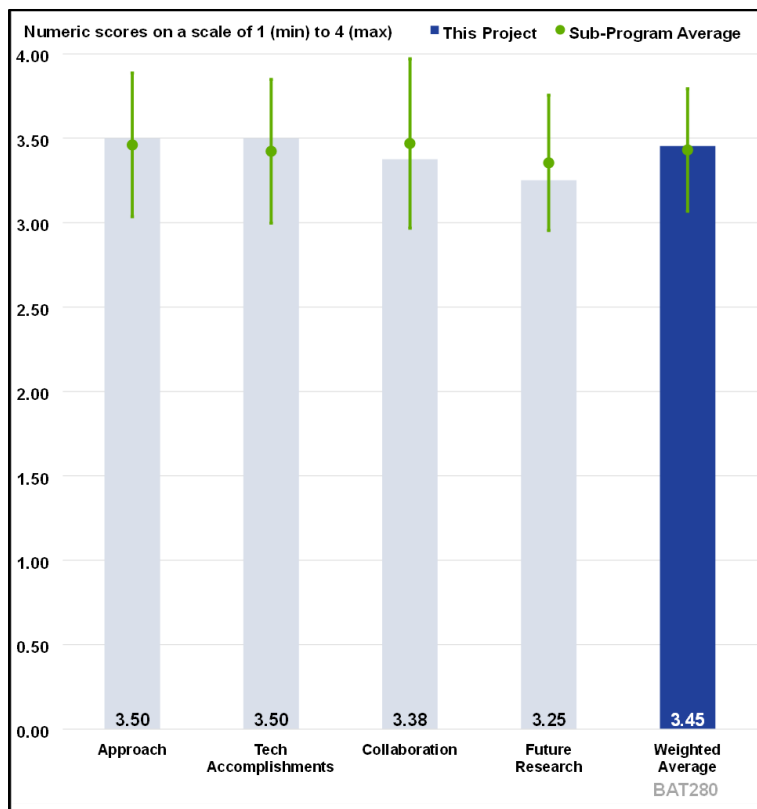


Figure 1-8 - Presentation Number: BAT280 Presentation Title: Novel Chemistry Lithium-Selenium and Selenium-Sulfur Couple Principal Investigator: Khalil Amine, Argonne National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT280_Amine_2025_o.pdf

Presentation Number:

BAT282

Presentation Title:

Development of High-Energy
Lithium-Sulfur Batteries

Principal Investigator:

Dongping Lu, Pacific Northwest
National Laboratory

Presenter

Dongping Lu, Pacific Northwest
National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the
project was relevant to current DOE
objectives, 0% of reviewers felt that
the project was not relevant, and
0% of reviewers did not indicate an
answer. 100% of reviewers felt that
the resources were sufficient, 0%
of reviewers felt that the resources
were insufficient, 0% of reviewers
felt that the resources were
excessive, and 0% of reviewers did
not indicate an answer.

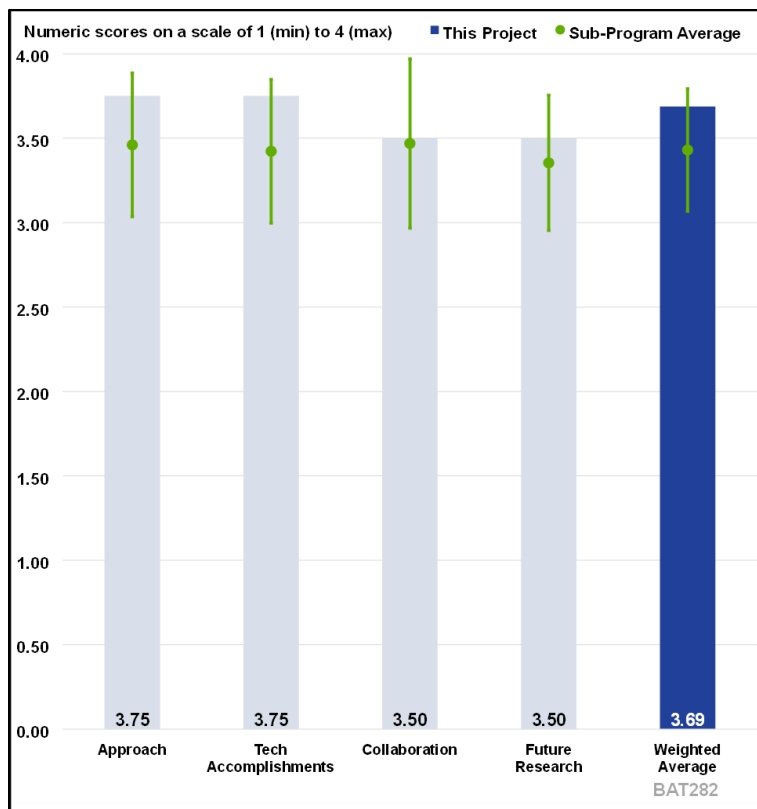


Figure 1-9 - Presentation Number: BAT282 Presentation Title: Development of High-Energy Lithium-Sulfur Batteries Principal Investigator: Dongping Lu, Pacific Northwest National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT282_Lu_2025_p.pdf

Presentation Number:

BAT285

Presentation Title:

Investigation of Sulfur Reaction Mechanisms

Principal Investigator:

Enyuan Hu, Brookhaven National Laboratory

Presenter

Enyuan Hu, Brookhaven National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT285_Hu_2025_o.pdf

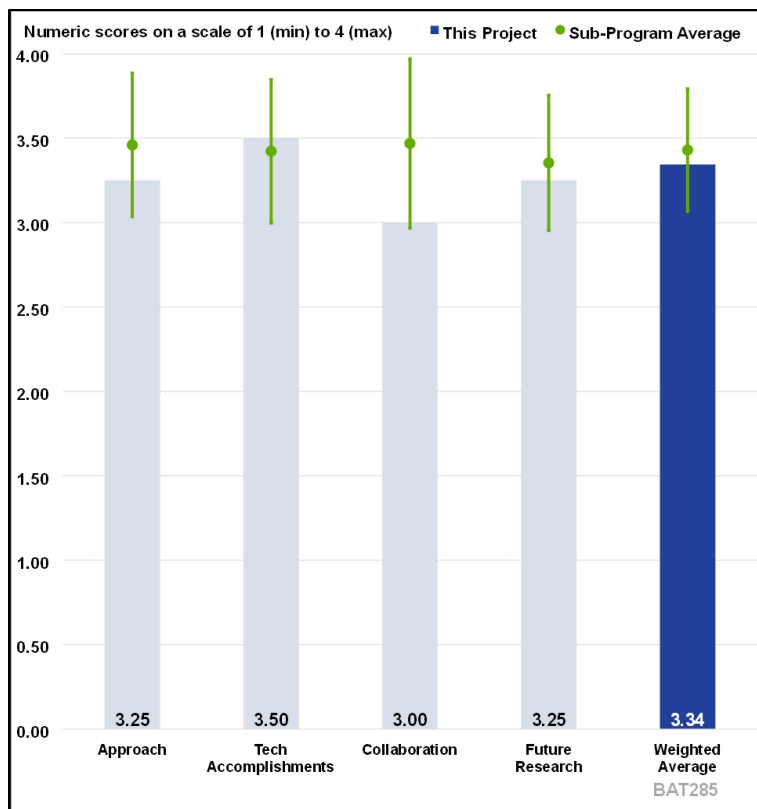


Figure 1-10 - Presentation Number: BAT285 Presentation Title: Investigation of Sulfur Reaction Mechanisms Principal Investigator: Enyuan Hu, Brookhaven National Laboratory

Presentation Number:

BAT309

Presentation Title:

Mathematical Modeling of Beyond Lithium-Ion Batteries

Principal Investigator:

Venkat Srinivasan, Argonne National Laboratory

Presenter

Venkat Srinivasan, Argonne National Laboratory

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT309_Srinivasan_2025_o.pdf

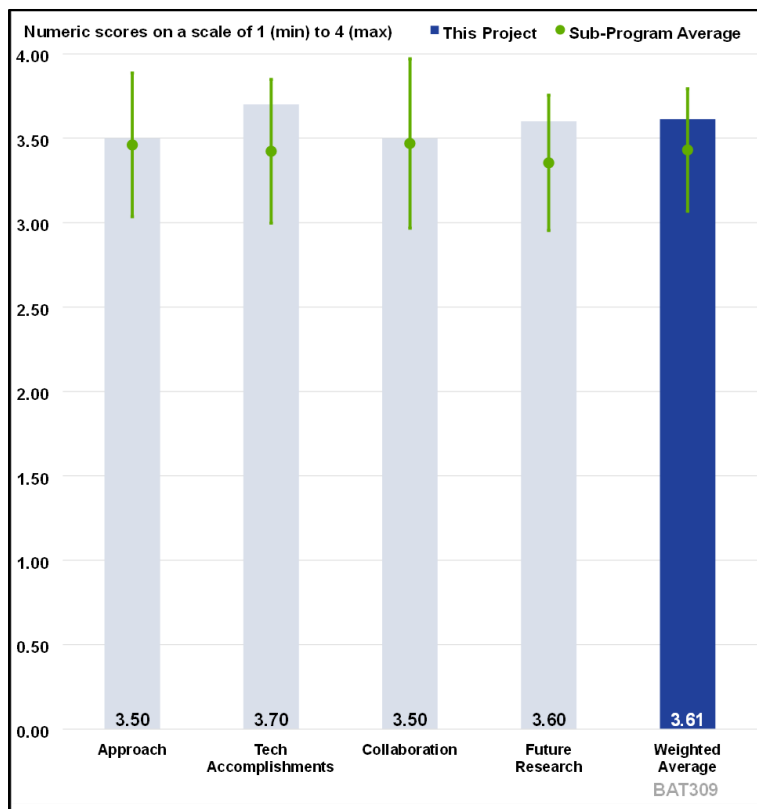


Figure 1-11 - Presentation Number: BAT309 Presentation Title: Mathematical Modeling of Beyond Lithium-Ion Batteries Principal Investigator: Venkat Srinivasan, Argonne National Laboratory

Presentation Number:

BAT315

Presentation Title:

Process R&D for Droplet-Produced Powdered Materials

Principal Investigator:

Joe Libera, Argonne National Laboratory

Presenter

Joe Libera, Argonne National Laboratory

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT315_Libera_2025_o.pdf

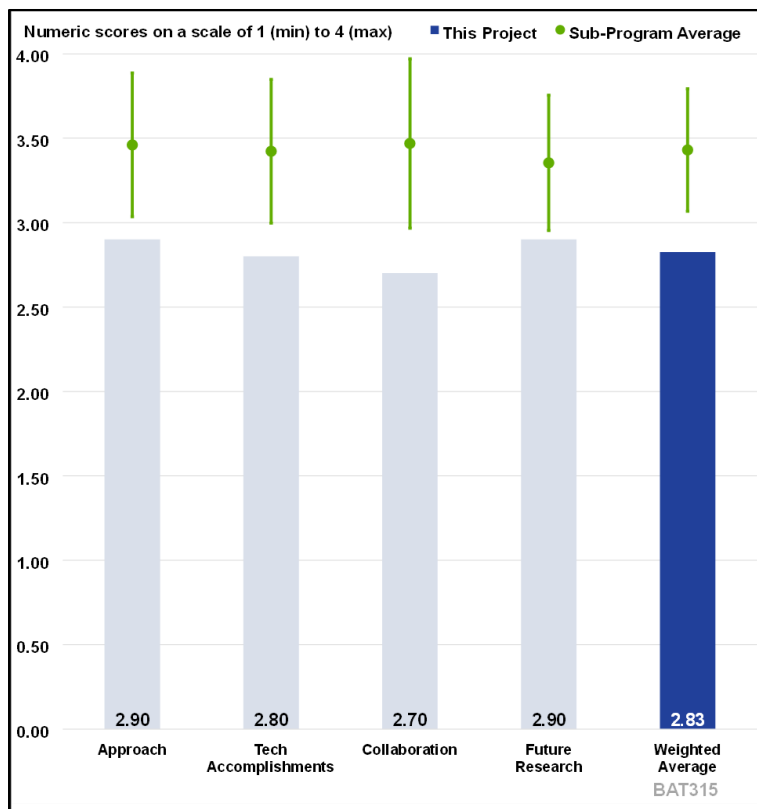


Figure 1-12 - Presentation Number: BAT315 Presentation Title: Process R&D for Droplet-Produced Powdered Materials Principal Investigator: Joe Libera, Argonne National Laboratory

Presentation Number:

BAT360

Presentation Title:

Cathodes Beyond Lithium Nickel
Manganese Cobalt Oxide (NMC)
811

Principal Investigator:

Arumugam Manthiram, University of
Texas at Austin

Presenter

Arumugam Manthiram, University of
Texas at Austin

Reviewer Sample Size

A total of four reviewers evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the
project was relevant to current DOE
objectives, 0% of reviewers felt that
the project was not relevant, and
0% of reviewers did not indicate an
answer. 100% of reviewers felt that
the resources were sufficient, 0%
of reviewers felt that the resources
were insufficient, 0% of reviewers
felt that the resources were
excessive, and 0% of reviewers did not indicate an answer.

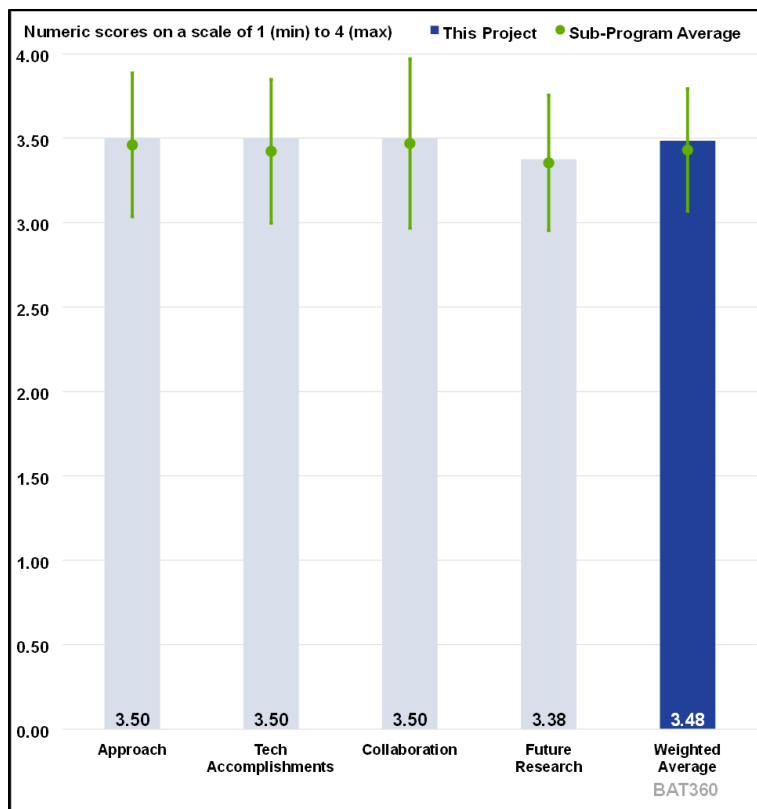


Figure 1-13 - Presentation Number: BAT360 Presentation Title: Cathodes Beyond Lithium Nickel Manganese Cobalt Oxide (NMC) 811 Principal Investigator: Arumugam Manthiram, University of Texas at Austin

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT360_Manthiram_2025_p.pdf

Presentation Number:

BAT362

Presentation Title:

High-Capacity S Cathode Materials

Principal Investigator:

Prashant Kumta, University of Pittsburgh

Presenter

Prashant Kumta, University of Pittsburgh

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT362_Kumta_2025_p.pdf

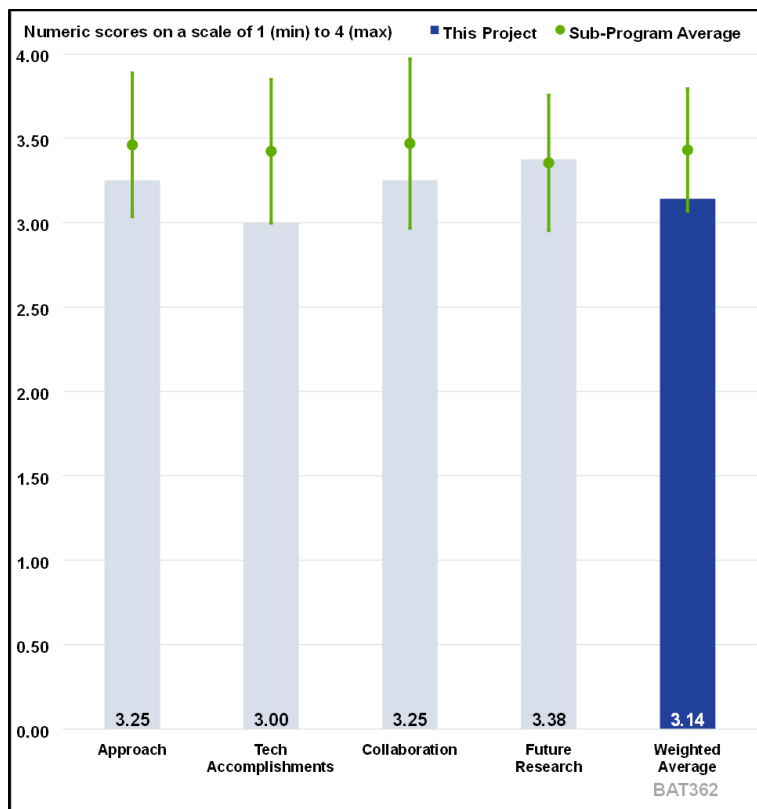


Figure 1-14 - Presentation Number: BAT362 Presentation Title: High-Capacity S Cathode Materials Principal Investigator: Prashant Kumta, University of Pittsburgh

Presentation Number:

BAT367

Presentation Title:

Multiscale Characterization Studies of Lithium Metal Batteries

Principal Investigator:

Peter Khalifah, Brookhaven National Laboratory

Presenter

Peter Khalifah, Brookhaven National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT367_Khalifah_2025_p.pdf

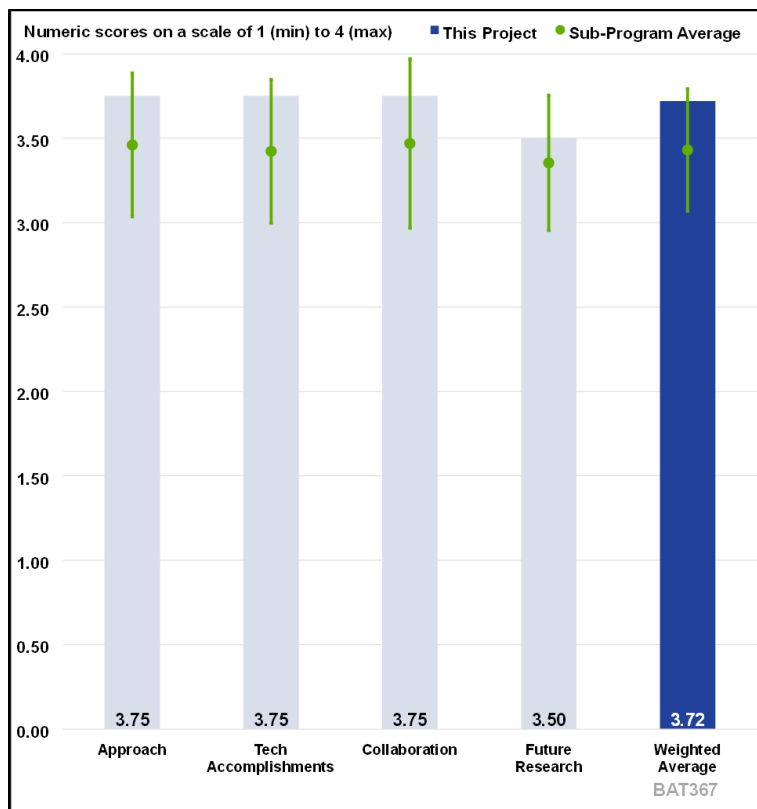


Figure 1-15 - Presentation Number: BAT367 Presentation Title: Multiscale Characterization Studies of Lithium Metal Batteries Principal Investigator: Peter Khalifah, Brookhaven National Laboratory

Presentation Number:

BAT377

Presentation Title:

ReCell – Overview and Update

Principal Investigator:

Jeffrey Spangenberg, Argonne National Laboratory

Presenter

Jeffrey Spangenberg, Argonne National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 75% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 25% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT377_Spangenberg_2025_o.pdf

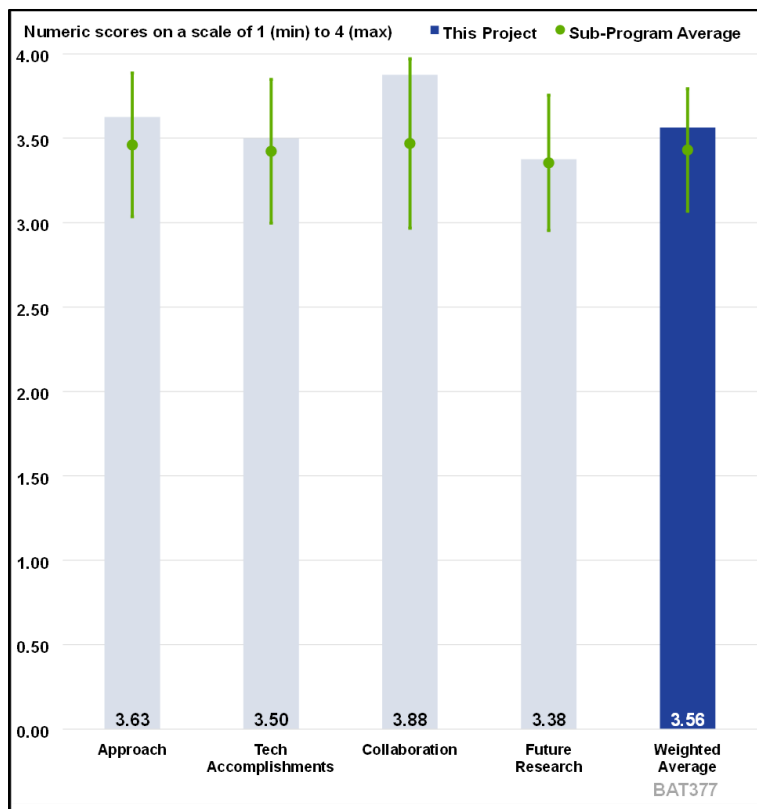


Figure 1-16 - Presentation Number: BAT377 Presentation Title: ReCell – Overview and Update Principal Investigator: Jeffrey Spangenberg, Argonne National Laboratory

Presentation Number:

BAT470

Presentation Title:

Process R&D Using Supercritical Fluid Reactors

Principal Investigator:

Youngho Shin, Argonne National Laboratory

Presenter

Youngho Shin, Argonne National Laboratory

Reviewer Sample Size

A total of six reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT470_Shin_2025_o.pdf

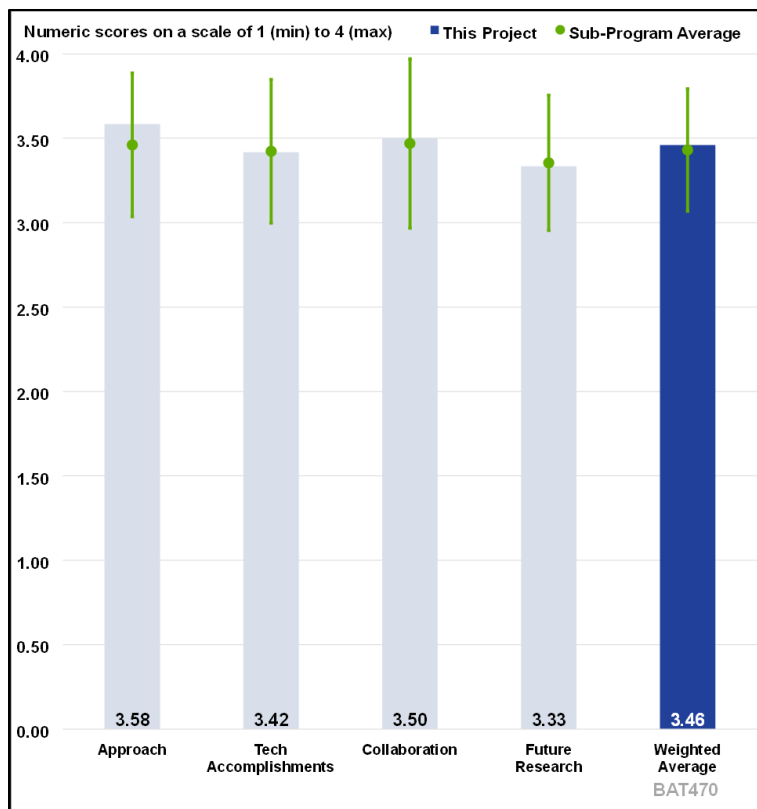


Figure 1-17 - Presentation Number: BAT470 Presentation Title: Process R&D Using Supercritical Fluid Reactors Principal Investigator: Youngho Shin, Argonne National Laboratory

Presentation Number:

BAT496

Presentation Title:

Silicon Consortium Project:
Advanced Characterization of
Silicon Electrodes

Principal Investigator:

Robert Kostecki, Lawrence Berkeley
National Laboratory

Presenter

Robert Kostecki, Lawrence Berkeley
National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the
project was relevant to current DOE
objectives, 0% of reviewers felt that
the project was not relevant, and
0% of reviewers did not indicate an
answer. 100% of reviewers felt that
the resources were sufficient, 0%
of reviewers felt that the resources
were insufficient, 0% of reviewers
felt that the resources were
excessive, and 0% of reviewers did not indicate an answer.

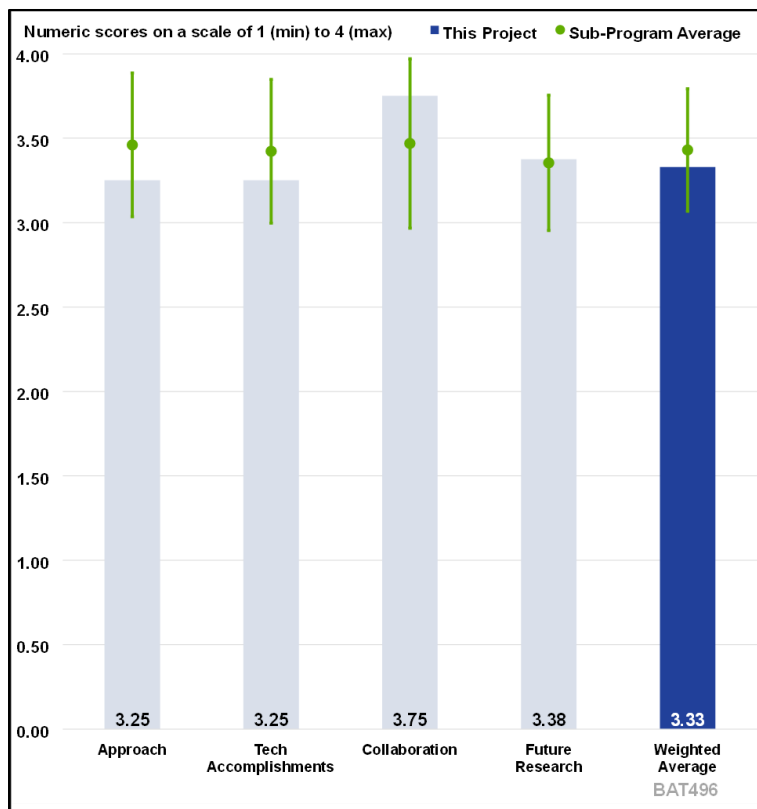


Figure 1-18 - Presentation Number: BAT496 Presentation Title: Silicon Consortium Project: Advanced Characterization of Silicon Electrodes Principal Investigator: Robert Kostecki, Lawrence Berkeley National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT496_Kostecki_2025_p.pdf

Presentation Number:

BAT497

Presentation Title:

Silicon Consortium Project:
Electrochemistry of Silicon
Electrodes

Principal Investigator:

Christopher Johnson, Argonne
National Laboratory

Presenter

Christopher Johnson, Argonne
National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the
project was relevant to current DOE
objectives, 0% of reviewers felt that
the project was not relevant, and
0% of reviewers did not indicate an
answer. 50% of reviewers felt that
the resources were sufficient, 25%
of reviewers felt that the resources
were insufficient, 25% of reviewers
felt that the resources were
excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT497_Johnson_2025_p.pdf

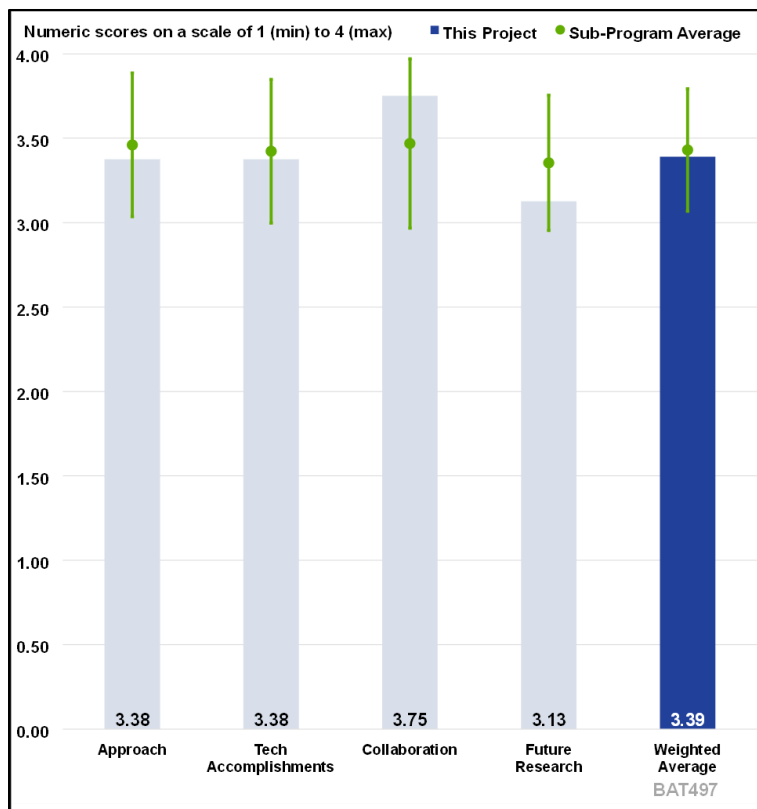


Figure 1-19 - Presentation Number: BAT497 Presentation Title: Silicon Consortium Project: Electrochemistry of Silicon Electrodes Principal Investigator: Christopher Johnson, Argonne National Laboratory

Presentation Number:

BAT498

Presentation Title:

Silicon Consortium Project: Next-Gen Materials for Silicon Anodes

Principal Investigator:

Nathan Neale, National Renewable Energy Laboratory

Presenter

Nathan Neale, National Renewable Energy Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

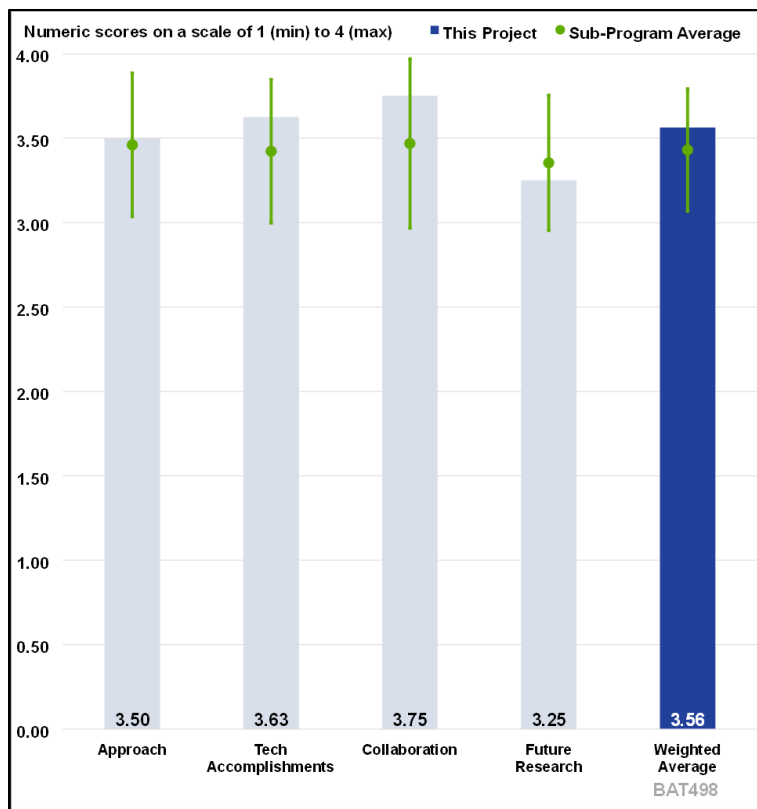


Figure 1-20 - Presentation Number: BAT498 Presentation Title: Silicon Consortium Project: Next-Gen Materials for Silicon Anodes Principal Investigator: Nathan Neale, National Renewable Energy Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT498_Neale_2025_p.pdf

Presentation Number:

BAT499

Presentation Title:

Silicon Consortium Project:
Mechanical Properties of Silicon
Anodes

Principal Investigator:

Katharine Harrison, National
Renewable Energy Laboratory

Presenter

Katharine Harrison, National
Renewable Energy Laboratory

Reviewer Sample Size

A total of four reviewers evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the
project was relevant to current DOE
objectives, 0% of reviewers felt that
the project was not relevant, and
0% of reviewers did not indicate an
answer. 100% of reviewers felt that
the resources were sufficient, 0%
of reviewers felt that the resources
were insufficient, 0% of reviewers
felt that the resources were
excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT499_Harrison_2025_p.pdf

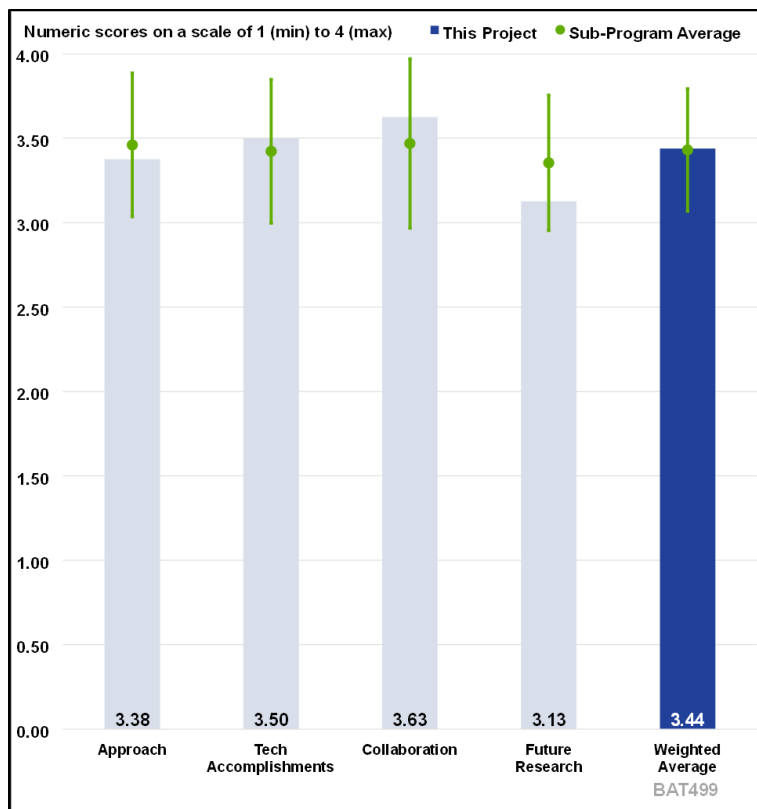


Figure 1-21 - Presentation Number: BAT499 Presentation Title: Silicon Consortium Project: Mechanical Properties of Silicon Anodes Principal Investigator: Katharine Harrison, National Renewable Energy Laboratory

Presentation Number:

BAT501

Presentation Title:

Integrated Modeling of Electrolyte Properties and Machine Learning of Calendar Lifetime Prediction of Si Anode Batteries

Principal Investigator:

Kristin A. Persson, Lawrence Berkeley National Laboratory

Presenter

Kristin A. Persson, Lawrence Berkeley National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT501_Persson_2025_p.pdf

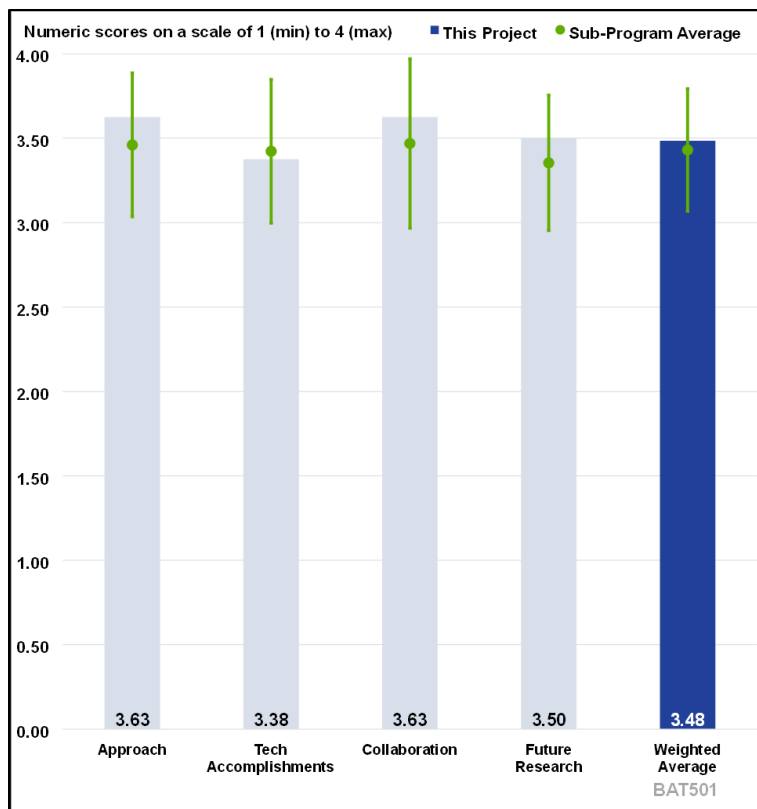


Figure 1-22 - Presentation Number: BAT501 Presentation Title: Integrated Modeling of Electrolyte Properties and Machine Learning of Calendar Lifetime Prediction of Si Anode Batteries Principal Investigator: Kristin A. Persson, Lawrence Berkeley National Laboratory

Presentation Number:

BAT523

Presentation Title:

Development of Long-Life Lithium and Sulfurized Polyacrylonitrile (SPAN) Cells

Principal Investigator:

Ping Liu, University of California San Diego

Presenter

Ping Liu, University of California San Diego

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 80% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 20% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT523_Liu_2025_p.pdf

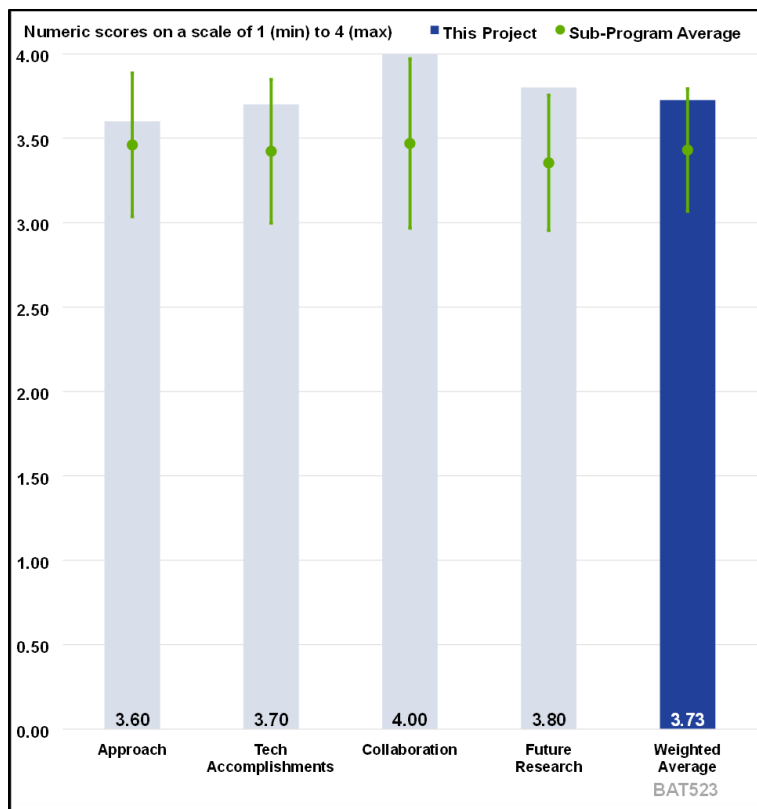


Figure 1-23 - Presentation Number: BAT523 Presentation Title: Development of Long-Life Lithium and Sulfurized Polyacrylonitrile (SPAN) Cells Principal Investigator: Ping Liu, University of California San Diego

Presentation Number:

BAT524

Presentation Title:

Advanced Electrolytes for Lithium Metal Batteries

Principal Investigator:

Chunsheng Wang, University of Maryland, College Park

Presenter

Chunsheng Wang, University of Maryland, College Park

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT524_Wang_2025_p.pdf

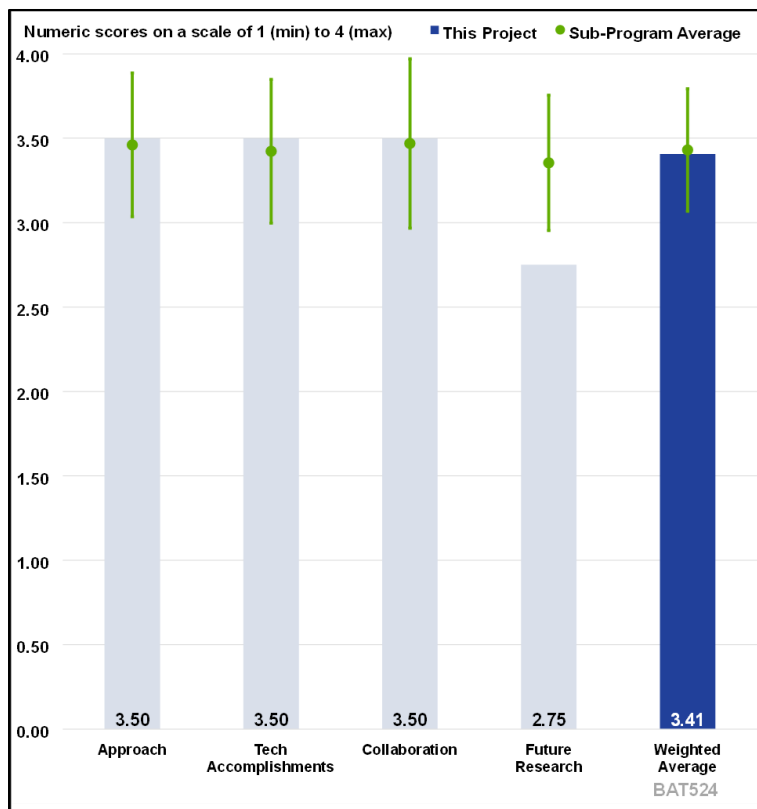


Figure 1-24 - Presentation Number: BAT524 Presentation Title: Advanced Electrolytes for Lithium Metal Batteries Principal Investigator: Chunsheng Wang, University of Maryland, College Park

Presentation Number:

BAT555

Presentation Title:

Advanced Polymer Materials for Batteries

Principal Investigator:

Zhenan Bao, SLAC National Accelerator Laboratory/ Stanford University

Presenter

Zhenan Bao, SLAC National Accelerator/ Stanford University

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT555_Bao_2025_o.pdf

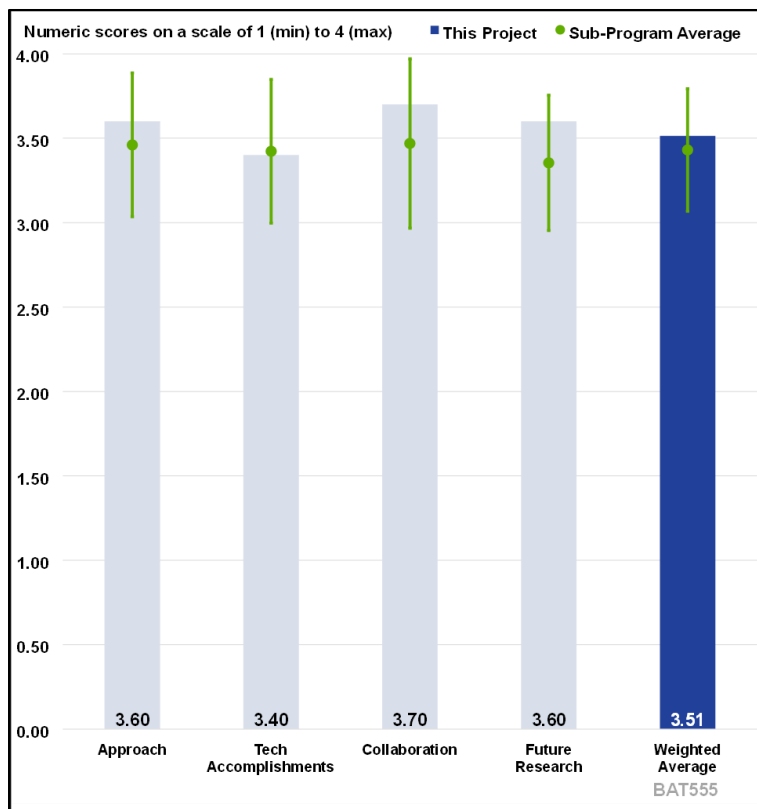


Figure 1-25 - Presentation Number: BAT555 Presentation Title: Advanced Polymer Materials for Batteries Principal Investigator: Zhenan Bao, SLAC National Accelerator Laboratory/ Stanford University

Presentation Number:

BAT569

Presentation Title:

Earth-Abundant Cathode Active Materials for Li-Ion Batteries

Principal Investigator:

Jason Croy, Argonne National Laboratory

Presenter

Jason Croy, Argonne National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT569_Croy_2025_o.pdf

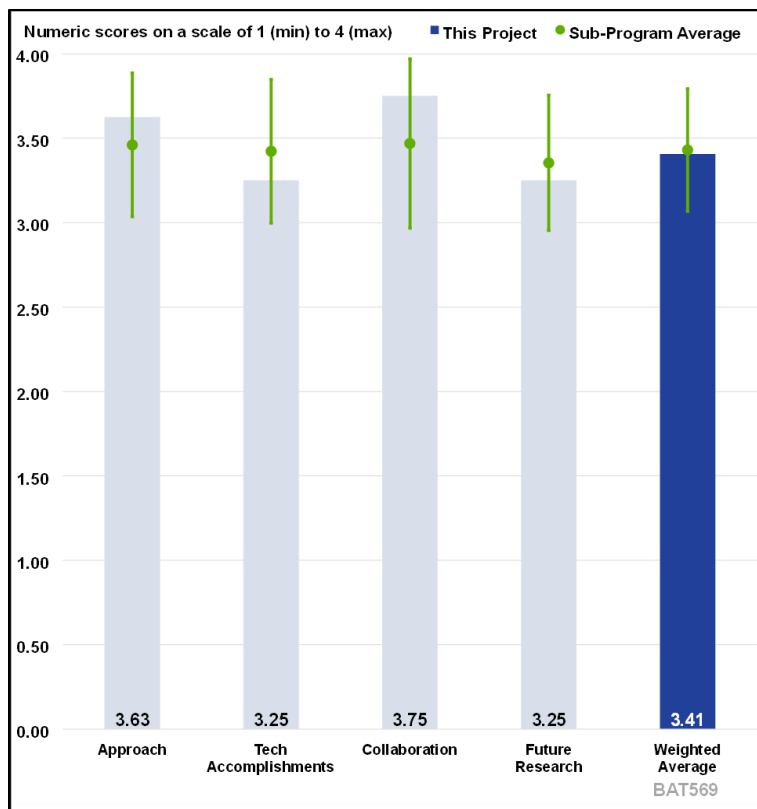


Figure 1-26 - Presentation Number: BAT569 Presentation Title: Earth-Abundant Cathode Active Materials for Li-Ion Batteries Principal Investigator: Jason Croy, Argonne National Laboratory

Presentation Number:

BAT570

Presentation Title:

Cation-Disordered Cathode Materials (DRX+) - Overview and Progress Update

Principal Investigator:

Gerbrand Ceder, Lawrence Berkeley National Laboratory

Presenter

Gerbrand Ceder, Lawrence Berkeley National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 75% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 25% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

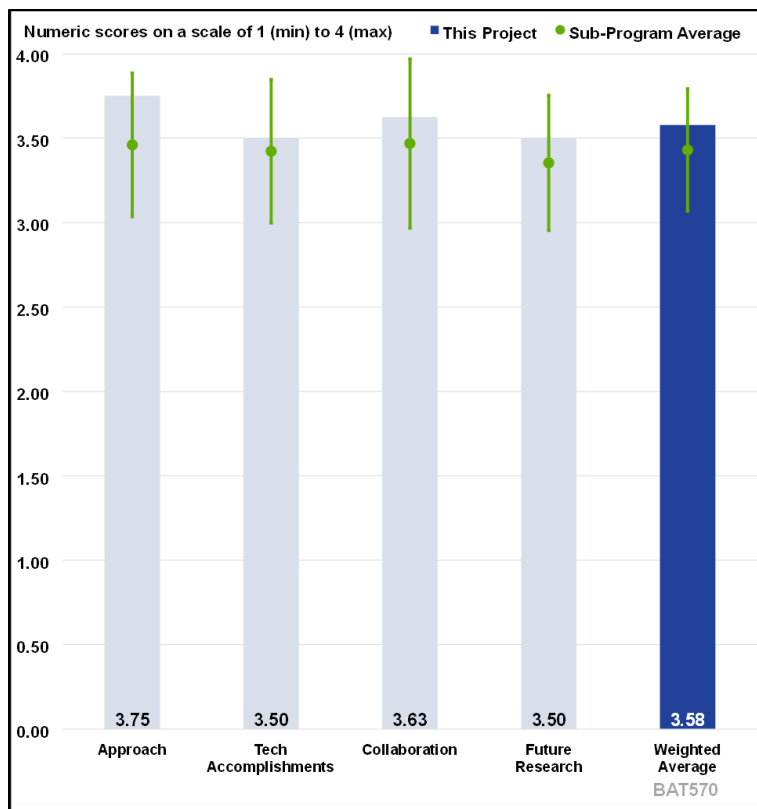


Figure 1-27 - Presentation Number: BAT570 Presentation Title: Cation-Disordered Cathode Materials (DRX+) - Overview and Progress Update Principal Investigator: Gerbrand Ceder, Lawrence Berkeley National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT570_Ceder_2025_o.pdf

Presentation Number:

BAT571

Presentation Title:

ReCell Center-Direct Recycling of Materials

Principal Investigator:

Albert Lipson, Argonne National Laboratory

Presenter

Albert Lipson, Argonne National Laboratory

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 80% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 20% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT571_Lipson_2025_o.pdf

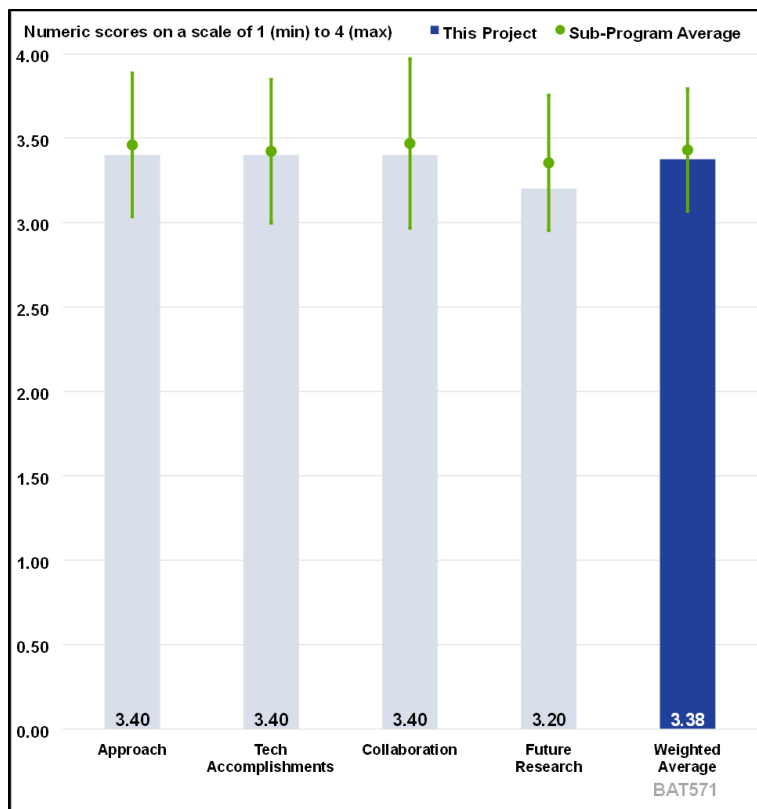


Figure 1-28 - Presentation Number: BAT571 Presentation Title: ReCell Center-Direct Recycling of Materials Principal Investigator: Albert Lipson, Argonne National Laboratory

Presentation Number:

BAT572

Presentation Title:

ReCell Center-Advanced Resource Recovery

Principal Investigator:

Yaocai Bai, Oak Ridge National Laboratory

Presenter

Yaocai Bai, Oak Ridge National Laboratory

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT572_Bai_2025_o.pdf

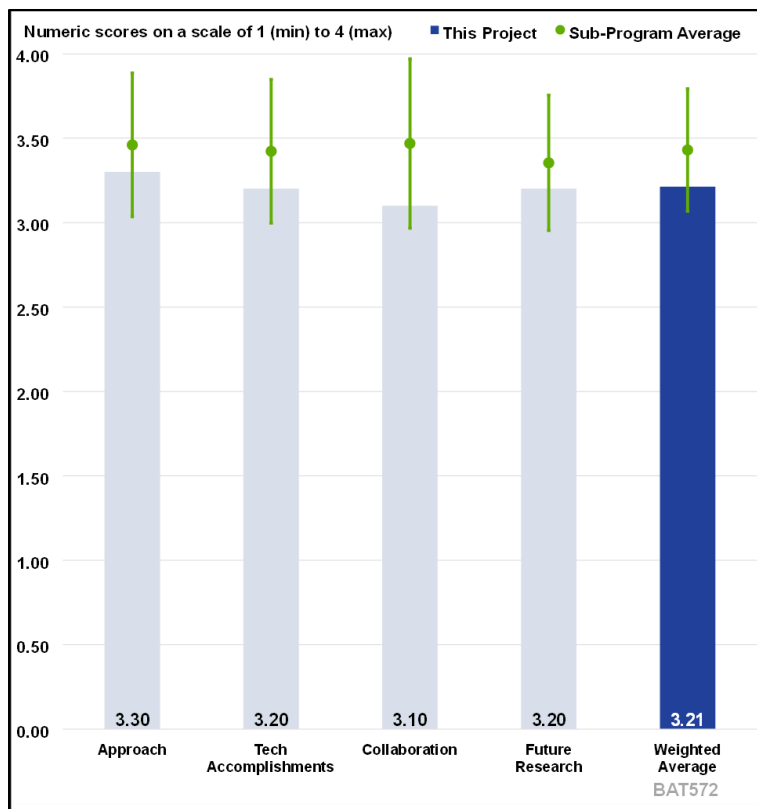


Figure 1-29 - Presentation Number: BAT572 Presentation Title: ReCell Center-Advanced Resource Recovery Principal Investigator: Yaocai Bai, Oak Ridge National Laboratory

Presentation Number:

BAT573

Presentation Title:

ReCell Center-Design for Sustainability

Principal Investigator:

Kandler Smith, National Renewable Energy Laboratory

Presenter

Kandler Smith, National Renewable Energy Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT573_Smith_2025_o.pdf

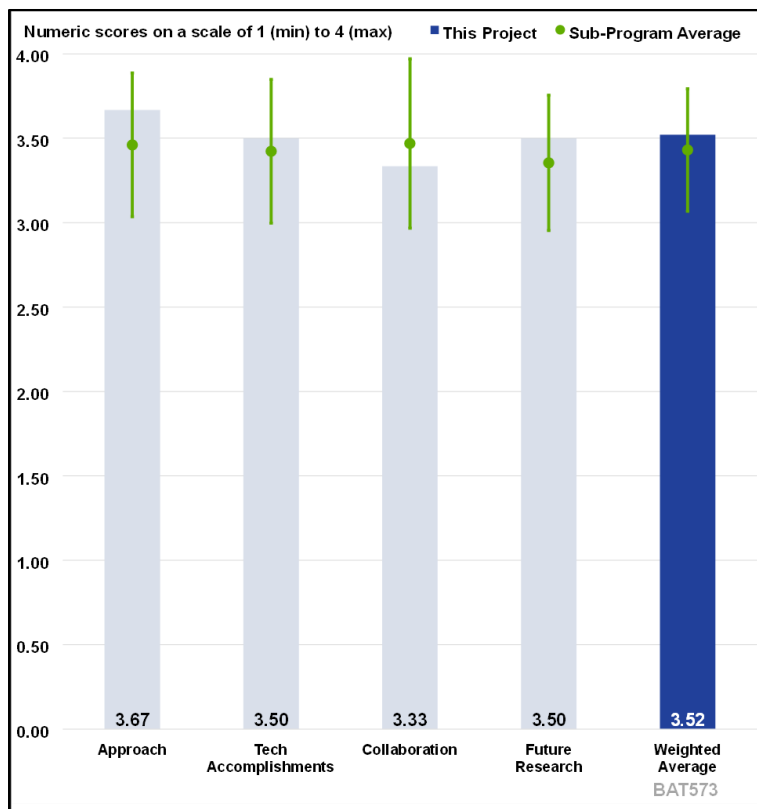


Figure 1-30 - Presentation Number: BAT573 Presentation Title: ReCell Center-Design for Sustainability Principal Investigator: Kandler Smith, National Renewable Energy Laboratory

Presentation Number:

BAT574

Presentation Title:

ReCell Center-Modeling and Analysis

Principal Investigator:

Sabine Gallagher, Argonne National Laboratory

Presenter

Sabine Gallagher, Argonne National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT574_Gallagher_Key_2025_o.pdf

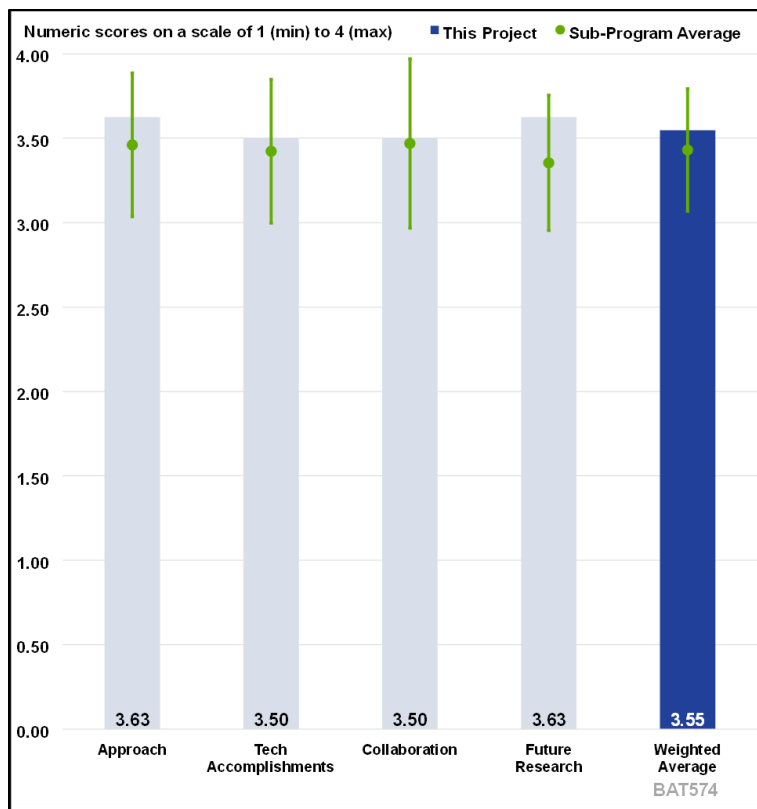


Figure 1-31 - Presentation Number: BAT574 Presentation Title: ReCell Center-Modeling and Analysis Principal Investigator: Sabine Gallagher, Argonne National Laboratory

Presentation Number:

BAT576

Presentation Title:

Solid State Batteries with Long Cycle Life and High Energy Density

Principal Investigator:

Haegyum Kim, Lawrence Berkeley National Laboratory

Presenter

Haegyum Kim, Lawrence Berkeley National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

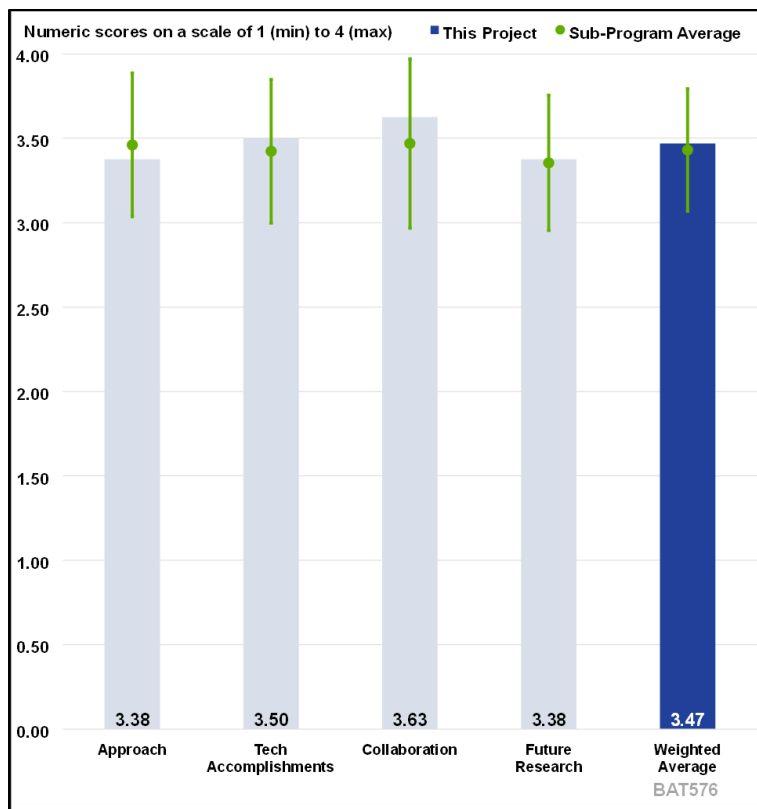


Figure 1-32 - Presentation Number: BAT576 Presentation Title: Solid State Batteries with Long Cycle Life and High Energy Density Principal Investigator: Haegyum Kim, Lawrence Berkeley National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT576_Kim_2025_o.pdf

Presentation Number:

BAT577

Presentation Title:

Low-Pressure All-Solid-State Cells

Principal Investigator:

Tony Burrell, National Renewable Energy Laboratory

Presenter

Tony Burrell, National Renewable Energy Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT577_Burrell_2025_o.pdf

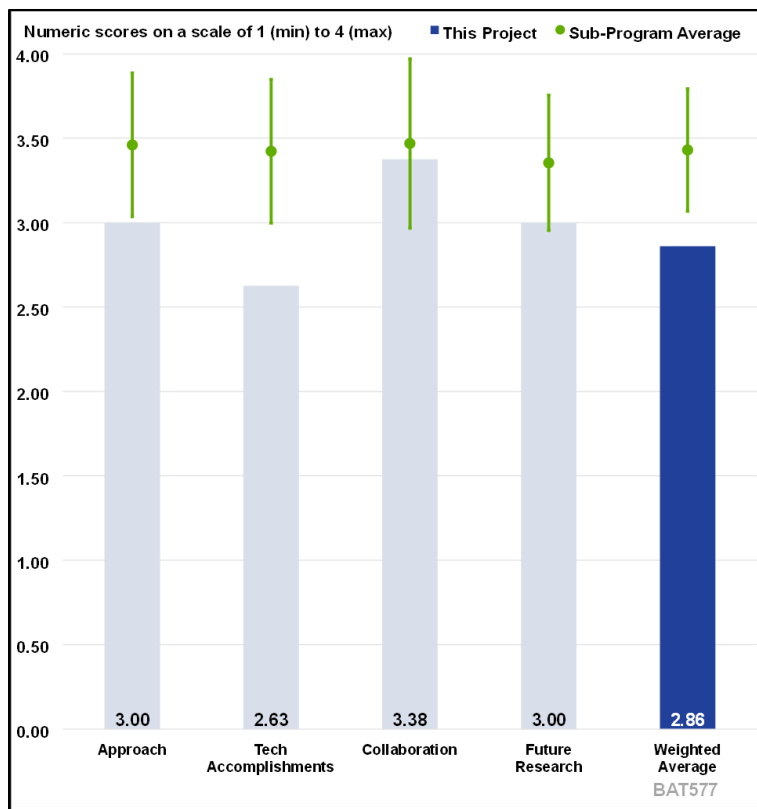


Figure 1-33 - Presentation Number: BAT577 Presentation Title: Low-Pressure All-Solid-State Cells Principal Investigator: Tony Burrell, National Renewable Energy Laboratory

Presentation Number:

BAT578

Presentation Title:

Stable Solid-State Electrolyte and Interface for High-Energy Density Lithium-Sulfur Battery

Principal Investigator:

Dongping Lu, Pacific Northwest National Laboratory

Presenter

Dongping Lu, Pacific Northwest National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT578_Lu_2025_o.pdf

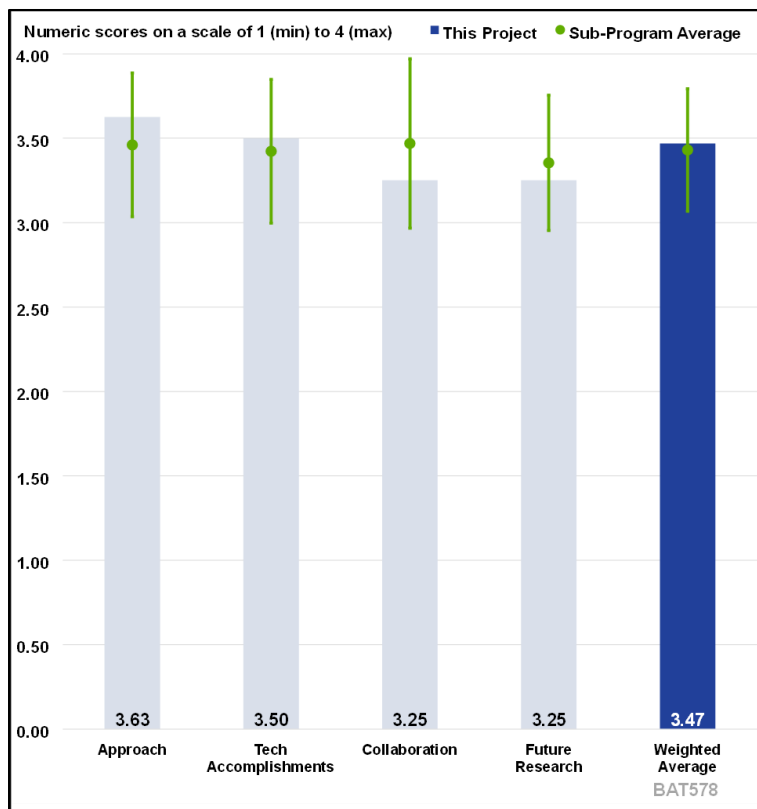


Figure 1-34 - Presentation Number: BAT578 Presentation Title: Stable Solid-State Electrolyte and Interface for High-Energy Density Lithium-Sulfur Battery Principal Investigator: Dongping Lu, Pacific Northwest National Laboratory

Presentation Number:

BAT579

Presentation Title:

Multifunctional Gradient Coatings for Scalable High-Energy Density Sulfide-Based Solid-State Batteries

Principal Investigator:

Justin Connell, Argonne National Laboratory

Presenter

Justin Connell, Argonne National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 75% of reviewers felt that the resources were sufficient, 25% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT579_Connell_2025_o.pdf

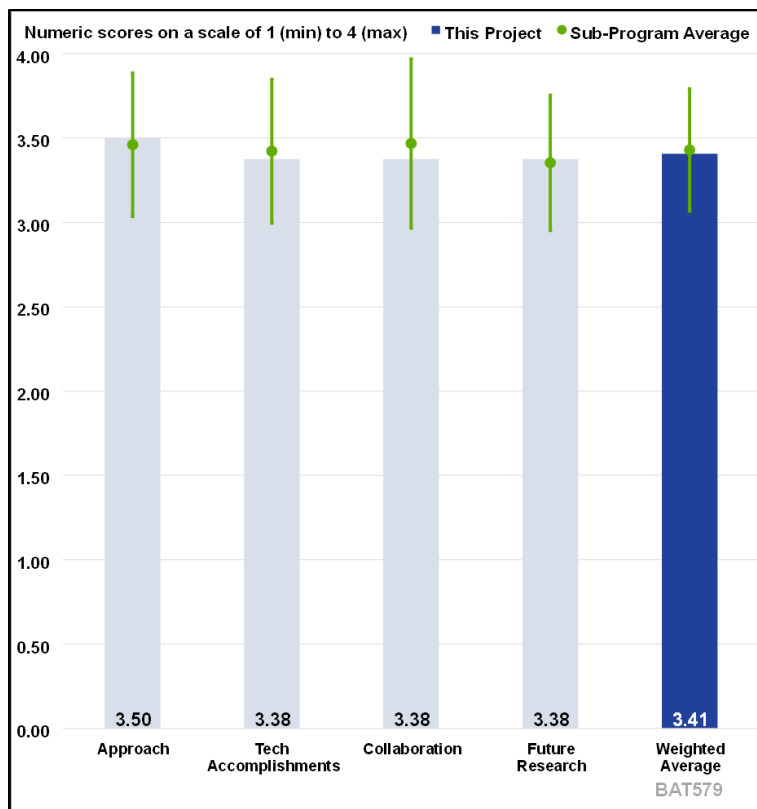


Figure 1-35 - Presentation Number: BAT579 Presentation Title: Multifunctional Gradient Coatings for Scalable High-Energy Density Sulfide-Based Solid-State Batteries Principal Investigator: Justin Connell, Argonne National Laboratory

Presentation Number:

BAT580

Presentation Title:

Thick Selenium-Sulfur Cathode Supported Ultra-thin Sulfide Electrolytes for High-Energy All-Solid-State Batteries

Principal Investigator:

Guiliang Xu, Argonne National Laboratory

Presenter

Guiliang Xu, Argonne National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT580_Xu_2025_o.pdf

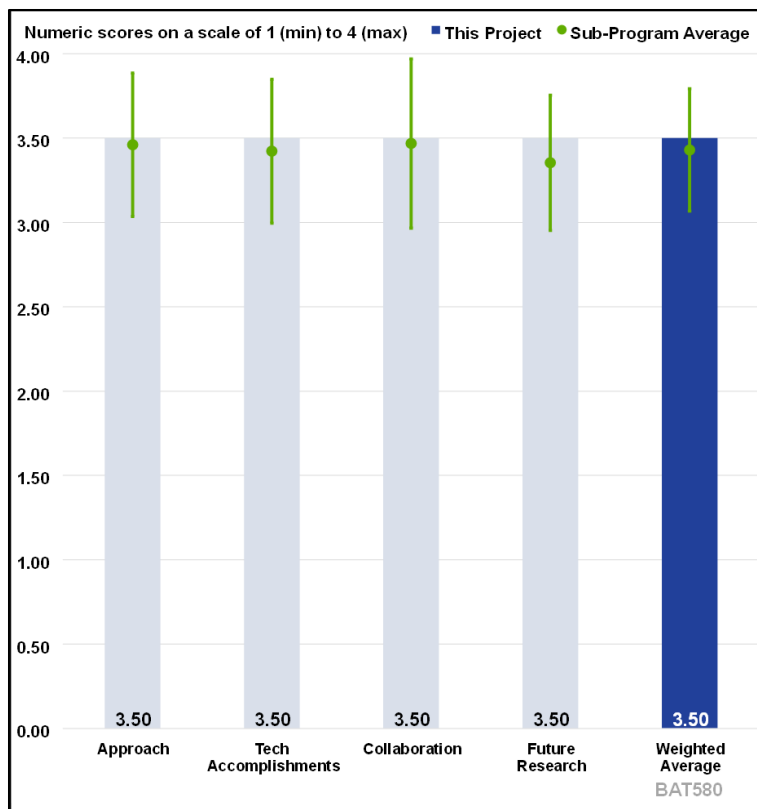


Figure 1-36 - Presentation Number: BAT580 Presentation Title: Thick Selenium-Sulfur Cathode Supported Ultra-thin Sulfide Electrolytes for High-Energy All-Solid-State Batteries Principal Investigator: Guiliang Xu, Argonne National Laboratory

Presentation Number:

BAT581

Presentation Title:

Precision Control of Lithium Surfaces for Solid-State Batteries

Principal Investigator:

Andrew Westover, Oak Ridge National Laboratory

Presenter

Andrew Westover, Oak Ridge National Laboratory

Reviewer Sample Size

A total of six reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 83% of reviewers felt that the resources were sufficient, 17% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT581_Westover_2025_o.pdf

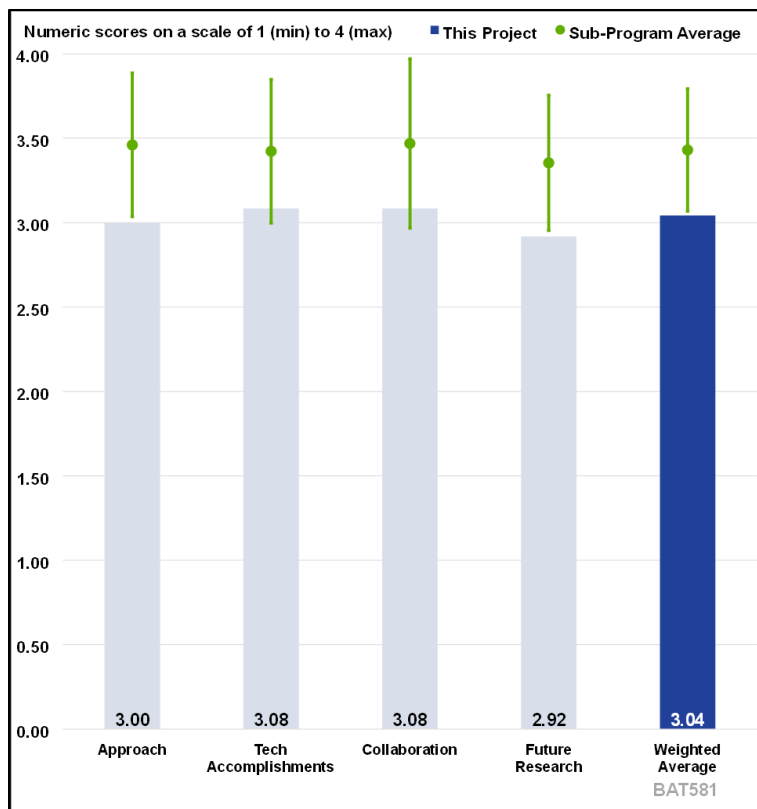


Figure 1-37 - Presentation Number: BAT581 Presentation Title: Precision Control of Lithium Surfaces for Solid-State Batteries Principal Investigator: Andrew Westover, Oak Ridge National Laboratory

Presentation Number:

BAT582

Presentation Title:

Inorganic-Polymer Composite Electrolytes with Architecture Design for Lithium Metal Solid-State Batteries

Principal Investigator:

Enyuan Hu, Brookhaven National Laboratory

Presenter

Enyuan Hu, Brookhaven National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT582_Hu_2025_o.pdf

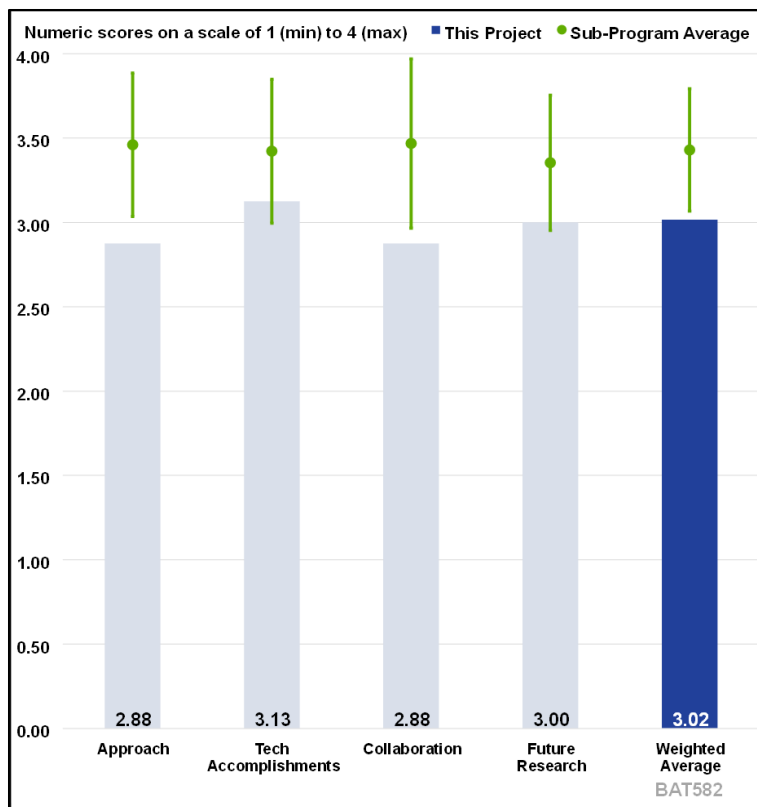


Figure 1-38 - Presentation Number: BAT582 Presentation Title: Inorganic-Polymer Composite Electrolytes with Architecture Design for Lithium Metal Solid-State Batteries Principal Investigator: Enyuan Hu, Brookhaven National Laboratory

Presentation Number:

BAT583

Presentation Title:

Development of All-Solid-State Battery Using Anti-Perovskite Electrolyte

Principal Investigator:

Zonghai Chen, Argonne National Laboratory

Presenter

Zonghai Chen, Argonne National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

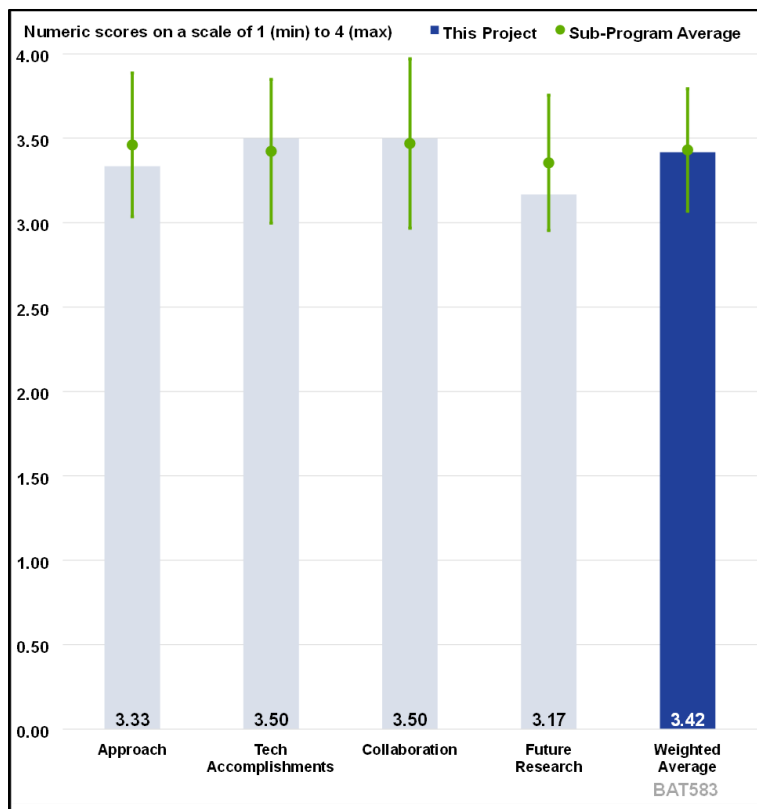


Figure 1-39 - Presentation Number: BAT583 Presentation Title: Development of All-Solid-State Battery Using Anti-Perovskite Electrolyte Principal Investigator: Zonghai Chen, Argonne National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT583_Chen_2025_o.pdf

Presentation Number:

BAT584

Presentation Title:

Integrated Atomic-, Meso-, and Micro-Scale Diagnostics of Solid-State Batteries

Principal Investigator:

William Chueh/Yi Cui, SLAC National Accelerator Laboratory/ Stanford University

Presenter

William Chueh, SLAC National Accelerator Laboratory/ Stanford University

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT584_Cui_Chueh_2025_p.pdf

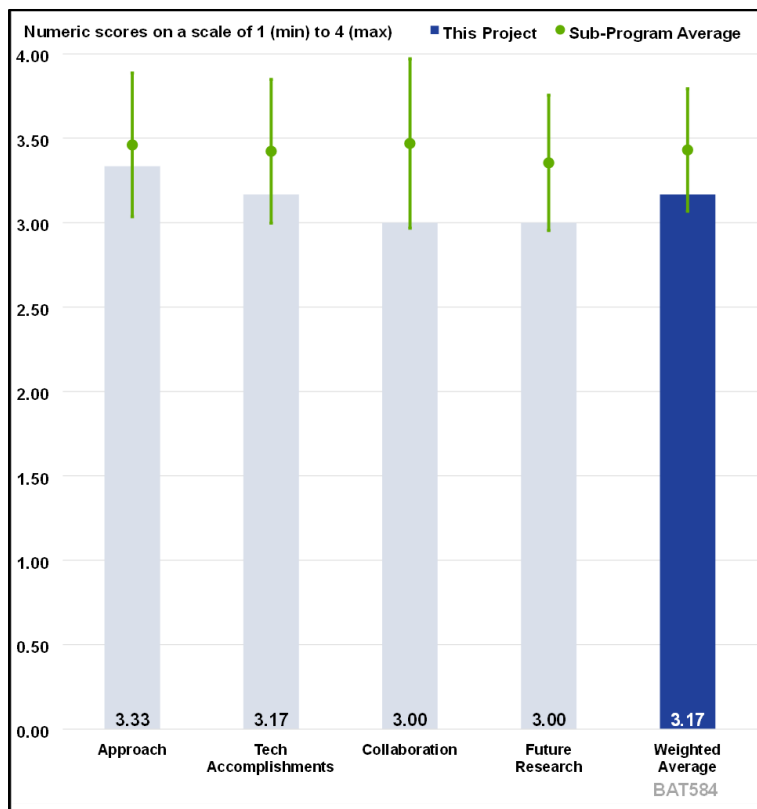


Figure 1-40 - Presentation Number: BAT584 Presentation Title: Integrated Atomic-, Meso-, and Micro-Scale Diagnostics of Solid-State Batteries Principal Investigator: William Chueh/Yi Cui, SLAC National Accelerator Laboratory/ Stanford University

Presentation Number:

BAT605

Presentation Title:

Silicon Consortium Project: Next Generation Electrolytes for Silicon Anodes

Principal Investigator:

Gabe Veith, Oak Ridge National Laboratory

Presenter

Gabe Veith, Oak Ridge National Laboratory

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT605_Veith_2025_p.pdf

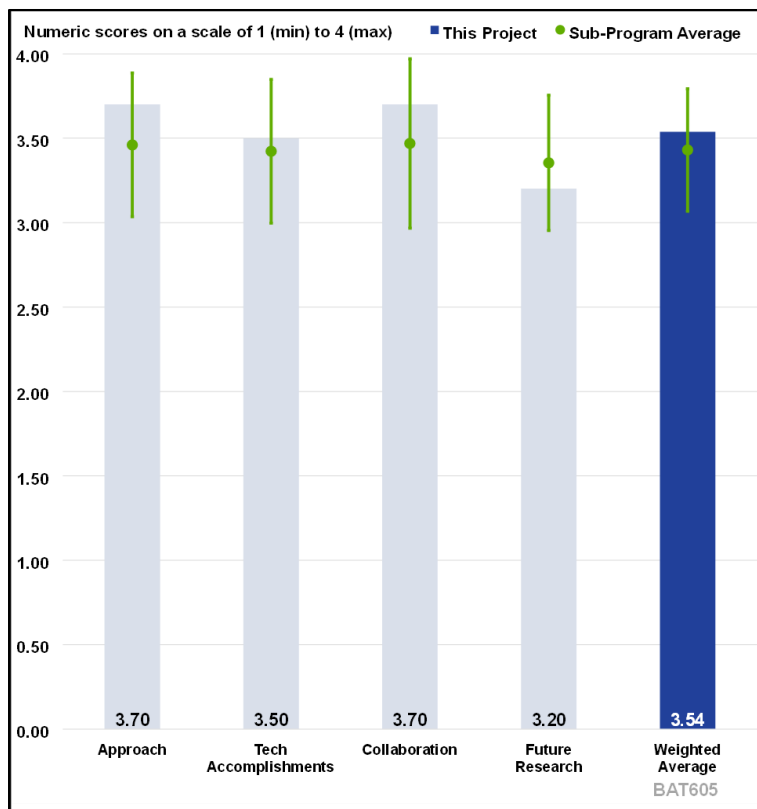


Figure 1-41 - Presentation Number: BAT605 Presentation Title: Silicon Consortium Project: Next Generation Electrolytes for Silicon Anodes Principal Investigator: Gabe Veith, Oak Ridge National Laboratory

Presentation Number:

BAT606

Presentation Title:

VTO High-Performance Computing Cluster

Principal Investigator:

Ray Grout, National Renewable Energy Laboratory

Presenter

Ray Grout, National Renewable Energy Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT606_Grout_2025_p.pdf

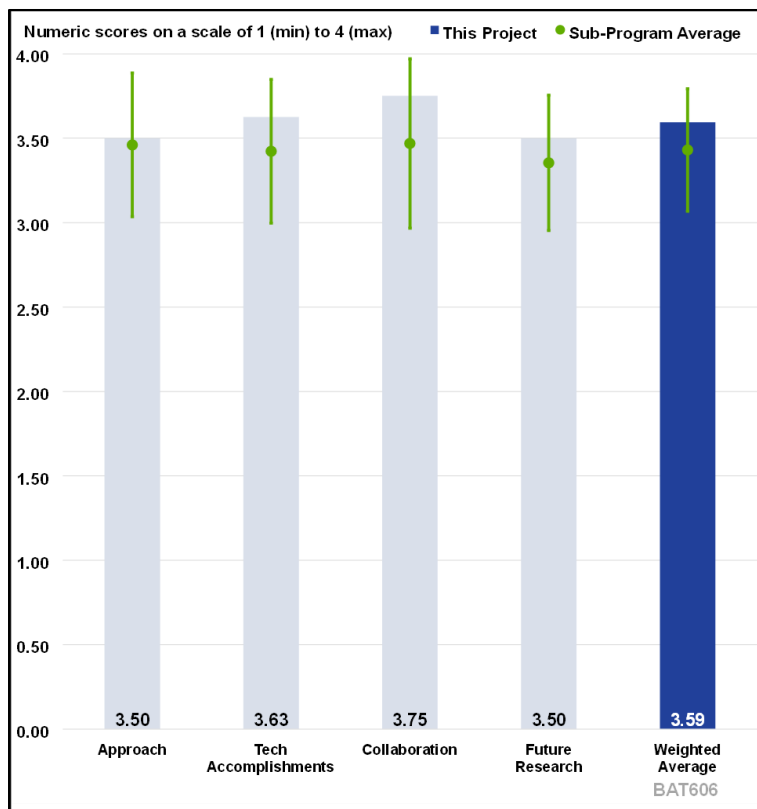


Figure 1-42 - Presentation Number: BAT606 Presentation Title: VTO High-Performance Computing Cluster Principal Investigator: Ray Grout, National Renewable Energy Laboratory

Presentation Number:

BAT607

Presentation Title:

Processing and Scale-Up of High Energy Density Cobalt-Free Cathodes

Principal Investigator:

Ilias Belharouak, Oak Ridge National Laboratory

Presenter

Ilias Belharouak, Oak Ridge National Laboratory

Reviewer Sample Size

A total of seven reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

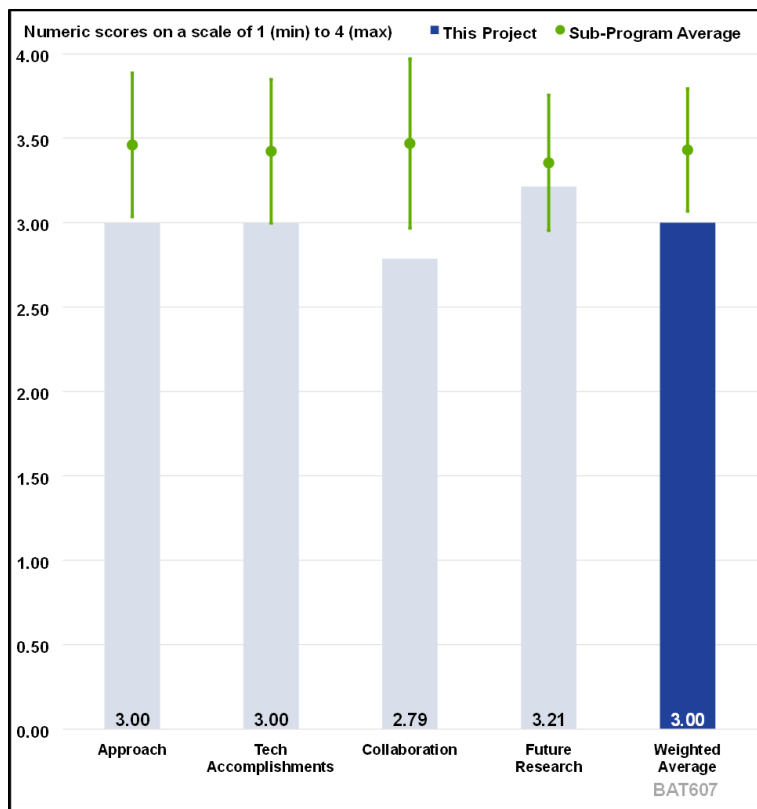


Figure 1-43 - Presentation Number: BAT607 Presentation Title: Processing and Scale-Up of High Energy Density Cobalt-Free Cathodes Principal Investigator: Ilias Belharouak, Oak Ridge National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT607_Belharouak_2025_o.pdf

Presentation Number:

BAT608

Presentation Title:

Cathode-Electrolyte Interphase (CEI) Consortium (Thrust 1): Model Cathode Materials for Next-Generation Li-Ion Batteries

Principal Investigator:

Jie Xiao, Pacific Northwest National Laboratory

Presenter

Jie Xiao, Pacific Northwest National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT608_Xiao_2025_p.pdf

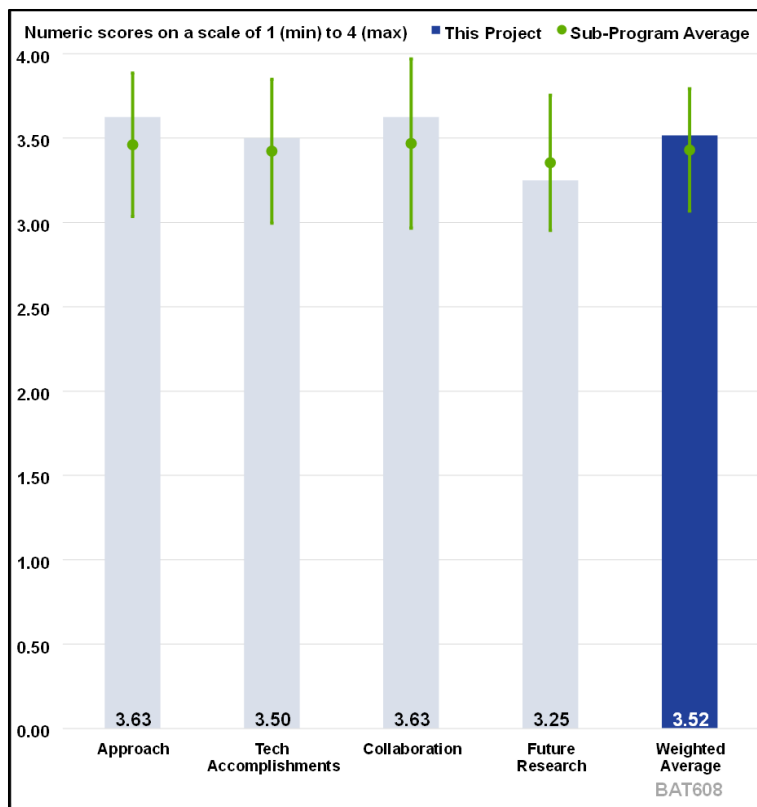


Figure 1-44 - Presentation Number: BAT608 Presentation Title: Cathode-Electrolyte Interphase (CEI) Consortium (Thrust 1): Model Cathode Materials for Next-Generation Li-Ion Batteries Principal Investigator: Jie Xiao, Pacific Northwest National Laboratory

Presentation Number:

BAT609

Presentation Title:

Cathode-Electrolyte Interphase (CEI) Consortium (Thrust 2): Electrolytes and CEI at High Voltages

Principal Investigator:

Jordi Cabana, Argonne National Laboratory

Presenter

Jordi Cabana, Argonne National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT609_Cabana_2025_p.pdf

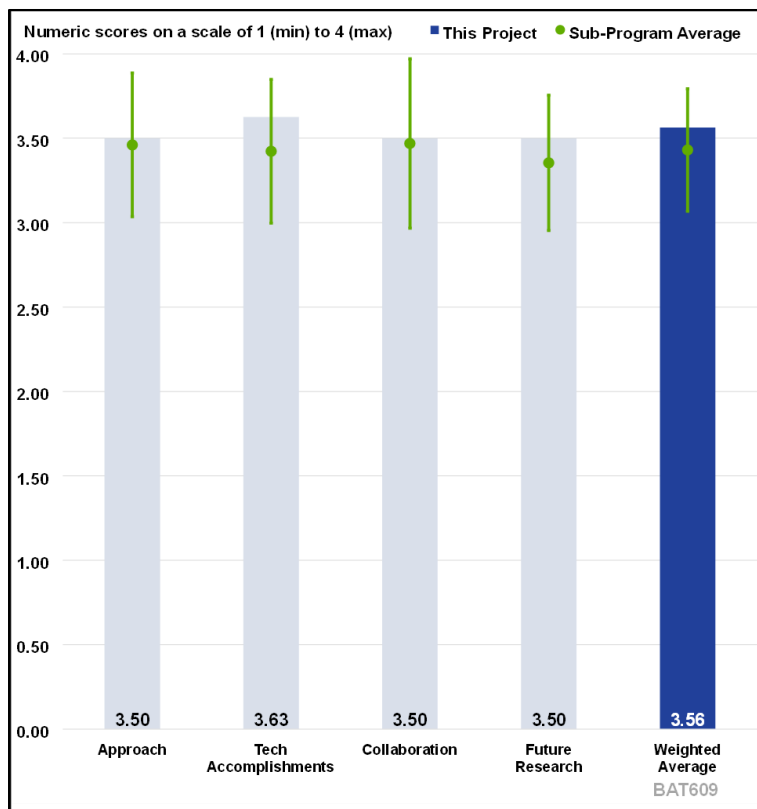


Figure 1-45 - Presentation Number: BAT609 Presentation Title: Cathode-Electrolyte Interphase (CEI) Consortium (Thrust 2): Electrolytes and CEI at High Voltages Principal Investigator: Jordi Cabana, Argonne National Laboratory

Presentation Number:

BAT610

Presentation Title:

Cathode-Electrolyte Interphase (CEI) Consortium (Thrust 3): Characterization and Modeling to Understand CEI

Principal Investigator:

Amy Marschilok, Brookhaven National Laboratory

Presenter

Amy Marschilok, Brookhaven National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT610_Marschilok_2025_p.pdf

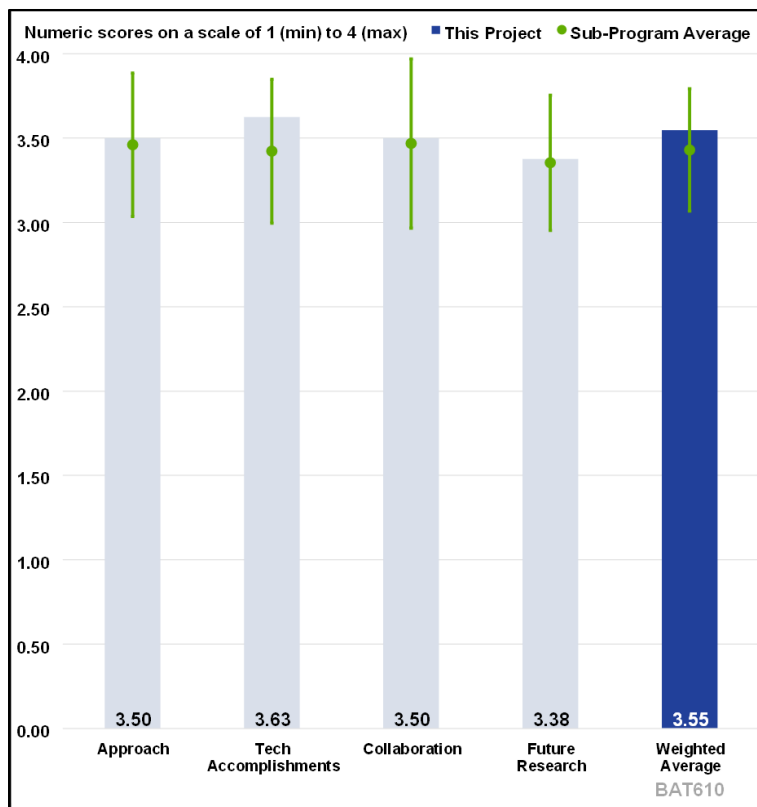


Figure 1-46 - Presentation Number: BAT610 Presentation Title: Cathode-Electrolyte Interphase (CEI) Consortium (Thrust 3): Characterization and Modeling to Understand CEI Principal Investigator: Amy Marschilok, Brookhaven National Laboratory

Presentation Number:

BAT619

Presentation Title:

The Role of Thermodynamics and Kinetics on the Coulombic Efficiency of Lithium Metal Batteries with FEC and DME-based Electrolytes

Principal Investigator:

Yang Shao-Horn, Massachusetts Institute of Technology

Presenter

Yang Shao-Horn, Massachusetts Institute of Technology

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 67% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 33% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

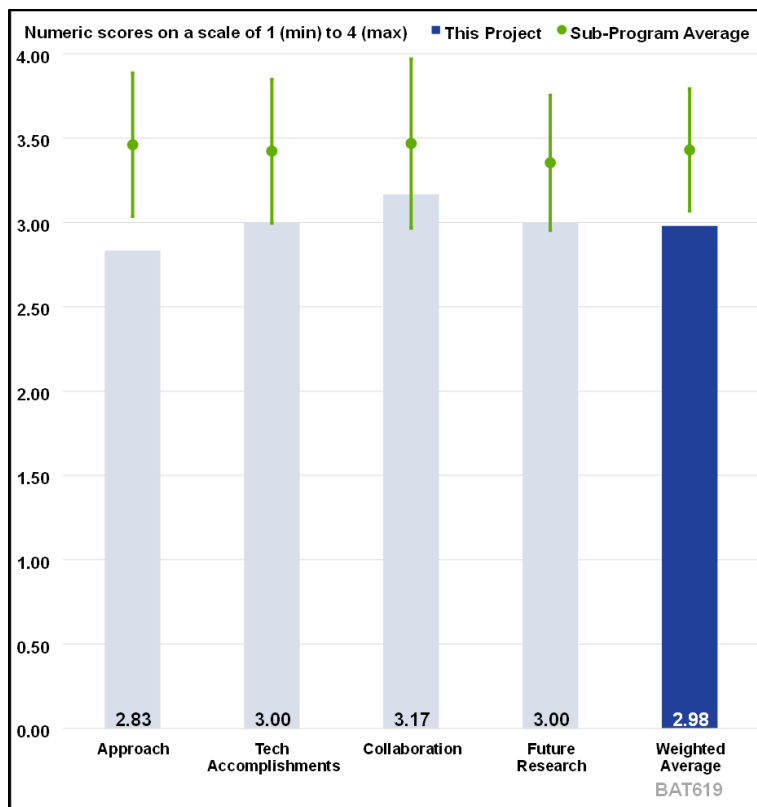


Figure 1-47 - Presentation Number: BAT619 Presentation Title: The Role of Thermodynamics and Kinetics on the Coulombic Efficiency of Lithium Metal Batteries with FEC and DME-based Electrolytes Principal Investigator: Yang Shao-Horn, Massachusetts Institute of Technology

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT619_Shaohorn_2025_o.pdf

Presentation Number:

BAT620

Presentation Title:

Lithium Metal Anode Stability
Against Soft and Hard Solid
Electrolytes

Principal Investigator:

Nitash Balsara, Lawrence Berkeley
National Laboratory

Presenter

Nitash Balsara, Lawrence Berkeley
National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the
project was relevant to current DOE
objectives, 0% of reviewers felt that
the project was not relevant, and
0% of reviewers did not indicate an
answer. 100% of reviewers felt that
the resources were sufficient, 0%
of reviewers felt that the resources
were insufficient, 0% of reviewers
felt that the resources were
excessive, and 0% of reviewers did not indicate an answer.

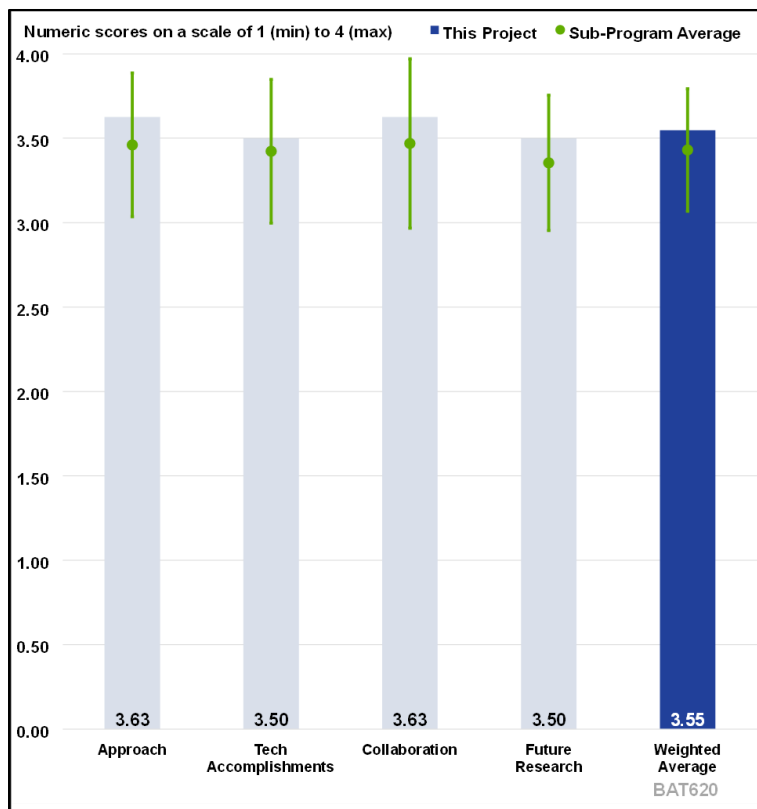


Figure 1-48 - Presentation Number: BAT620 Presentation Title: Lithium Metal Anode Stability Against Soft and Hard Solid Electrolytes Principal Investigator: Nitash Balsara, Lawrence Berkeley National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT620_Balsara_2025_o.pdf

Presentation Number:

BAT622

Presentation Title:

Thin Composite Solid Electrolyte for Li Metal Batteries

Principal Investigator:

Chunsheng Wang, University of Maryland, College Park

Presenter

Chunsheng Wang, University of Maryland, College Park

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT622_Wang_2025_o.pdf

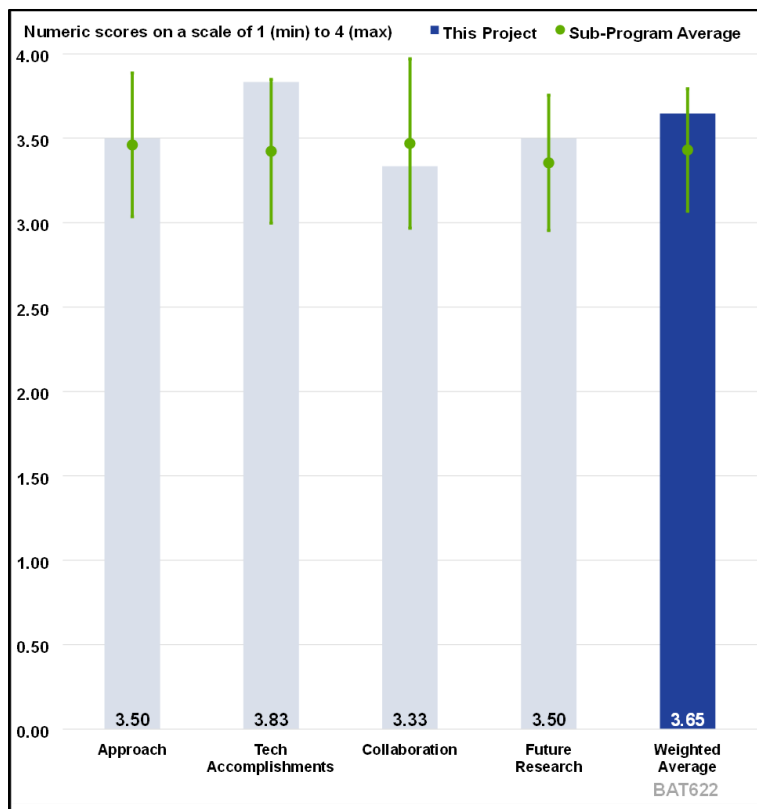


Figure 1-49 - Presentation Number: BAT622 Presentation Title: Thin Composite Solid Electrolyte for Li Metal Batteries Principal Investigator: Chunsheng Wang, University of Maryland, College Park

Presentation Number:

BAT623

Presentation Title:

Optimizing Cathode Architecture for Solid-State Li Metal-Sulfur Batteries

Principal Investigator:

Eric Wachsman, University of Maryland, College Park

Presenter

Eric Wachsman, University of Maryland, College Park

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

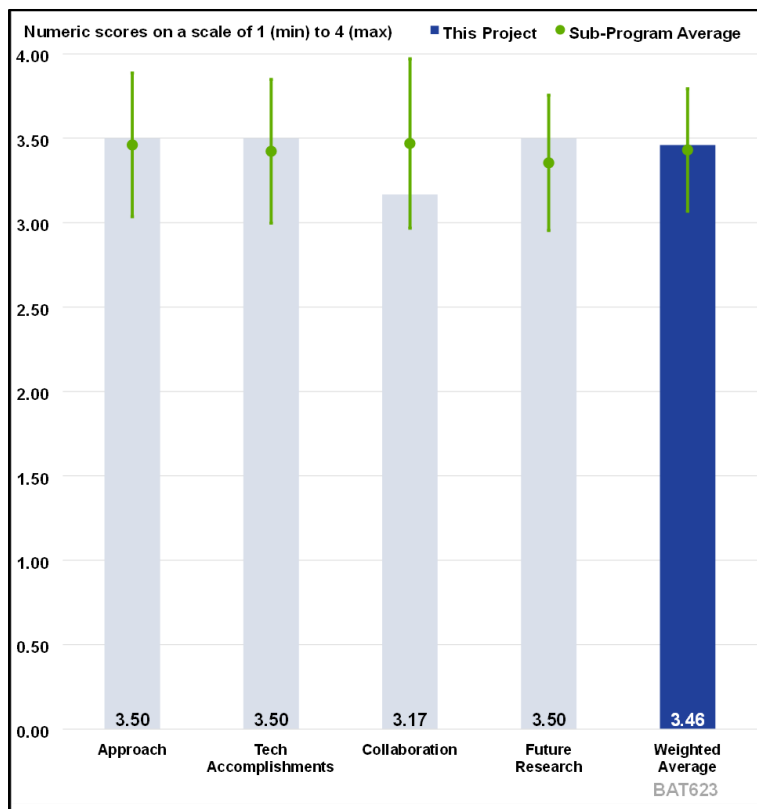


Figure 1-50 - Presentation Number: BAT623 Presentation Title: Optimizing Cathode Architecture for Solid-State Li Metal-Sulfur Batteries Principal Investigator: Eric Wachsman, University of Maryland, College Park

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT623_Wachsman_2025_o.pdf

Presentation Number:

BAT624

Presentation Title:

Scalable Noble-metal-free Interlayer Design for Sheet-type Dendrite-free Solid-state Lithium Metal Batteries

Principal Investigator:

Yan Yao, University of Houston

Presenter

Yan Yao, University of Houston

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

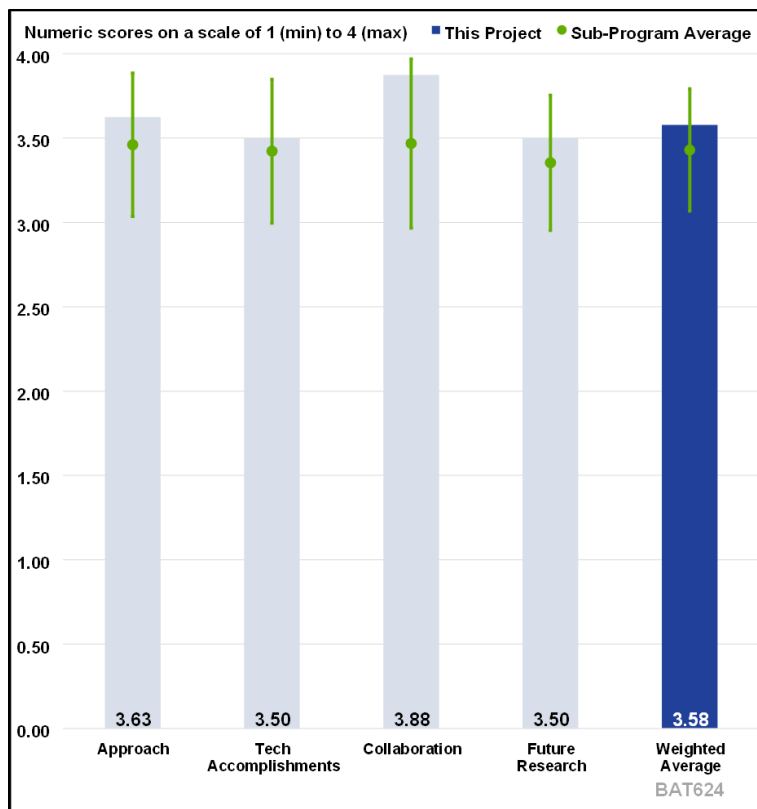


Figure 1-51 - Presentation Number: BAT624 Presentation Title: Scalable Noble-metal-free Interlayer Design for Sheet-type Dendrite-free Solid-state Lithium Metal Batteries Principal Investigator: Yan Yao, University of Houston

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT624_Yao_2025_o.pdf

Presentation Number:

BAT625

Presentation Title:

Development of High Energy Density All Solid-State Li Batteries Enabled through Optimized Electrochemical Interface and Engineering Cell Designs

Principal Investigator:

Deyang Qu, University of Wisconsin, Milwaukee

Presenter

Deyang Qu, University of Wisconsin, Milwaukee

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT625_Qu_2025_o.pdf

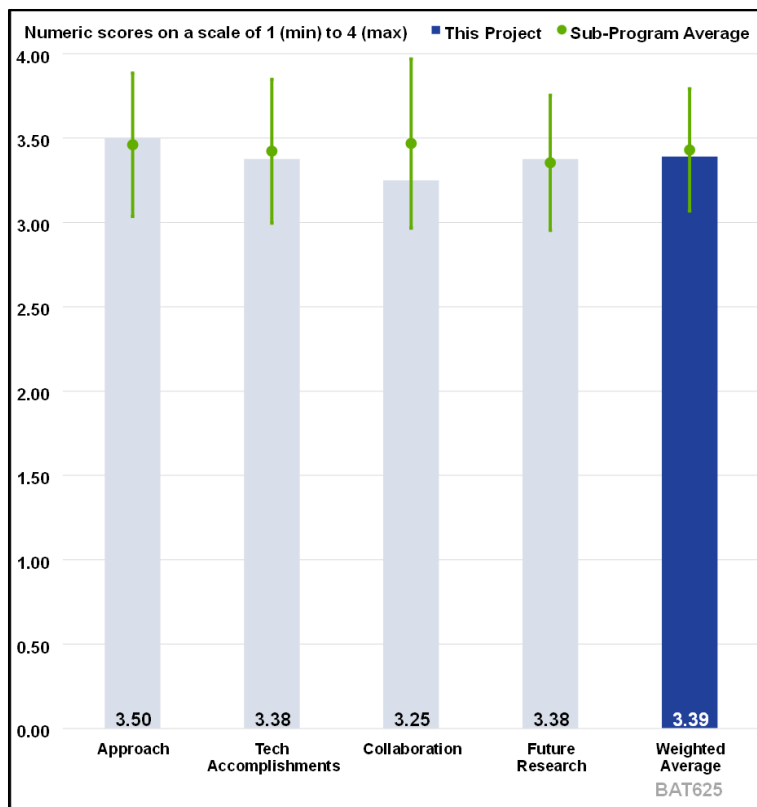


Figure 1-52 - Presentation Number: BAT625 Presentation Title: Development of High Energy Density All Solid-State Li Batteries Enabled through Optimized Electrochemical Interface and Engineering Cell Designs Principal Investigator: Deyang Qu, University of Wisconsin, Milwaukee

Presentation Number:

BAT626

Presentation Title:

Development of Thin, Robust, Lithium-Impenetrable, High-Conductivity, Electrochemically Stable, Scalable, and Low-Cost Glassy Solid Electrolytes

Principal Investigator:

Steve W. Martin, Iowa State University

Presenter

Steve W. Martin, Iowa State University

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT626_Martin_2025_o.pdf

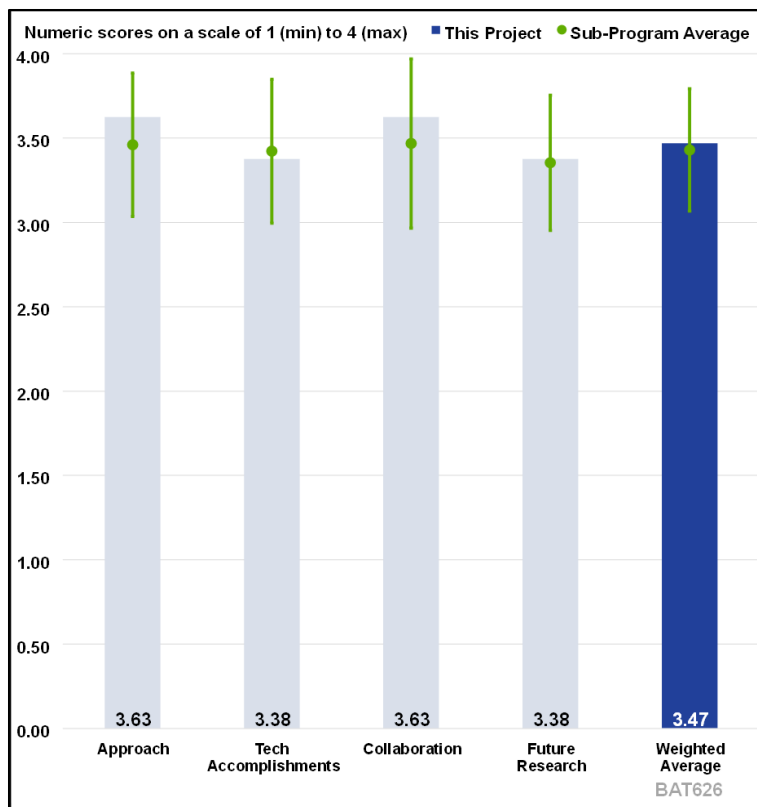


Figure 1-53 - Presentation Number: BAT626 Presentation Title: Development of Thin, Robust, Lithium-Impenetrable, High-Conductivity, Electrochemically Stable, Scalable, and Low-Cost Glassy Solid Electrolytes Principal Investigator: Steve W. Martin, Iowa State University

Presentation Number:

BAT627

Presentation Title:

Developing Materials to Enable High-Energy-Density Cathode and Stable Li Anode for Solid-State Li-S Batteries

Principal Investigator:

Donghai Wang, Southern Methodist University

Presenter

Donghai Wang, Southern Methodist University

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT627_Wang_2025_o.pdf

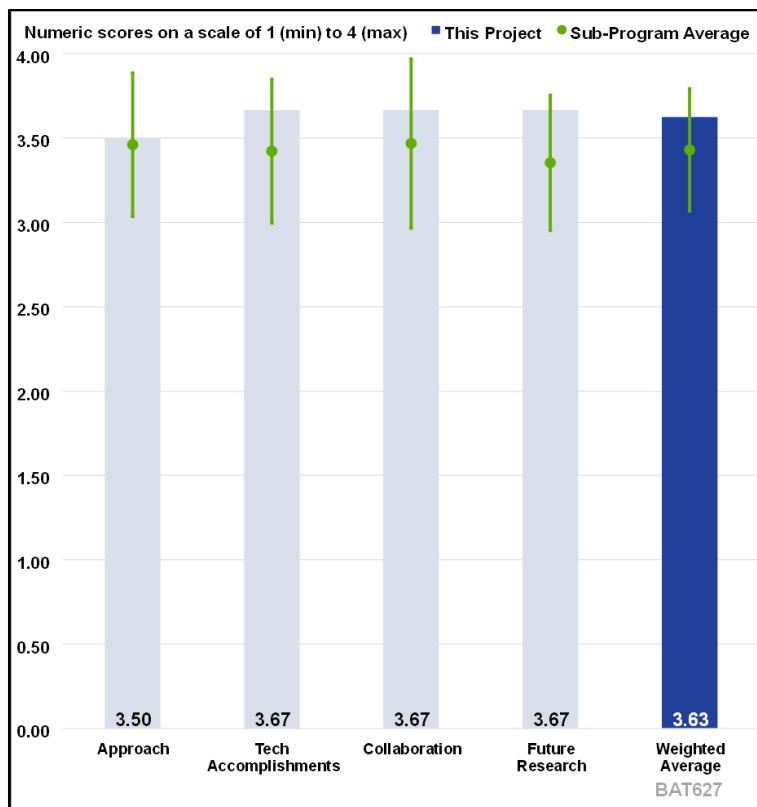


Figure 1-54 - Presentation Number: BAT627 Presentation Title: Developing Materials to Enable High-Energy-Density Cathode and Stable Li Anode for Solid-State Li-S Batteries Principal Investigator: Donghai Wang, Southern Methodist University

Presentation Number:

BAT628

Presentation Title:

Molecular Ionic Composite Solid Electrolytes for Long-Cycling and High Voltage Li-Metal Batteries

Principal Investigator:

Louis Madsen, Virginia Polytechnic Institute

Presenter

Louis Madsen, Virginia Polytechnic Institute

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT628_Madsen_2025_o.pdf

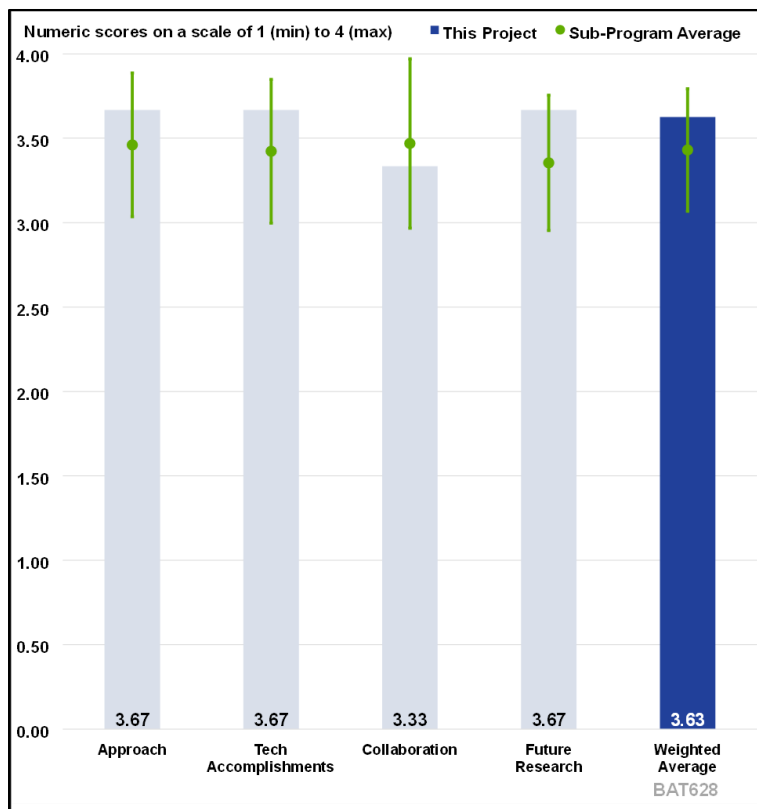


Figure 1-55 - Presentation Number: BAT628 Presentation Title: Molecular Ionic Composite Solid Electrolytes for Long-Cycling and High Voltage Li-Metal Batteries Principal Investigator: Louis Madsen, Virginia Polytechnic Institute

Presentation Number:

BAT629

Presentation Title:

Stable Sulfide-based Anode-Free and Anode-Limited All-Solid-State Lithium Battery

Principal Investigator:

Puru Jena, Virginia Commonwealth University

Presenter

Puru Jena, Virginia Commonwealth University

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

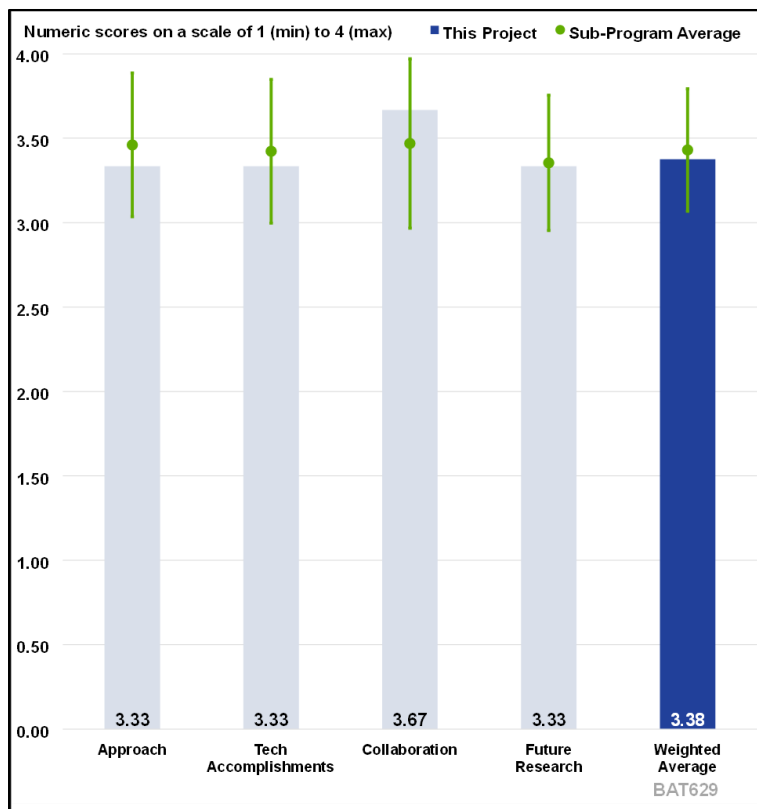


Figure 1-56 - Presentation Number: BAT629 Presentation Title: Stable Sulfide-based Anode-Free and Anode-Limited All-Solid-State Lithium Battery Principal Investigator: Puru Jena, Virginia Commonwealth University

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT629_Jena_2025_o.pdf

Presentation Number:

BAT630

Presentation Title:

Blocking Li Metal Dendrites In Solid Electrolytes With Ion-Exchange Induced Residual Stresses

Principal Investigator:

Brian W. Sheldon, Brown University

Presenter

Brian W. Sheldon, Brown University

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT630_Sheldon_2025_o.pdf

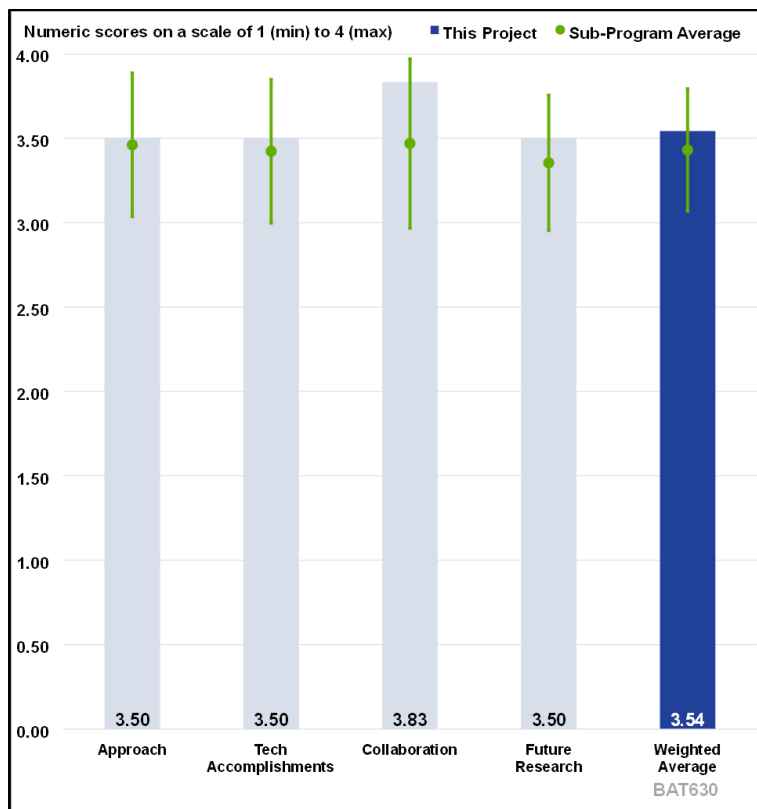


Figure 1-57 - Presentation Number: BAT630 Presentation Title: Blocking Li Metal Dendrites In Solid Electrolytes With Ion-Exchange Induced Residual Stresses Principal Investigator: Brian W. Sheldon, Brown University

Presentation Number:

BAT634

Presentation Title:

A Novel Integrated End-to-end Processing of End-of-Life EV Batteries for Remanufacturing of New EV Cells

Principal Investigator:

Anthony Roger, Cirba Solutions

Presenter

Anthony Roger, Cirba Solutions

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT634_Roger_2025_p.pdf

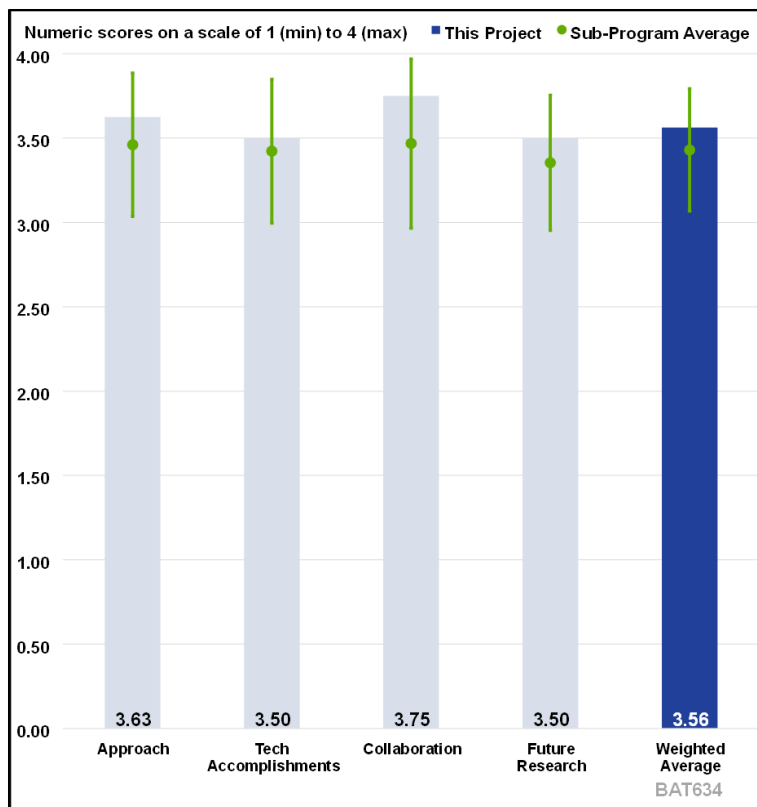


Figure 1-58 - Presentation Number: BAT634 Presentation Title: A Novel Integrated End-to-end Processing of End-of-Life EV Batteries for Remanufacturing of New EV Cells Principal Investigator: Anthony Roger, Cirba Solutions

Presentation Number:

BAT636

Presentation Title:

An Environmentally Sustainable Solution to Completely Recycle and Upcycle Lithium-Ion Battery Components

Principal Investigator:

Xiaofang Yang, Princeton NuEnergy

Presenter

Xiaofang Yang, Princeton NuEnergy

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 50% of reviewers felt that the resources were sufficient, 50% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT636_Yang_2025_p.pdf

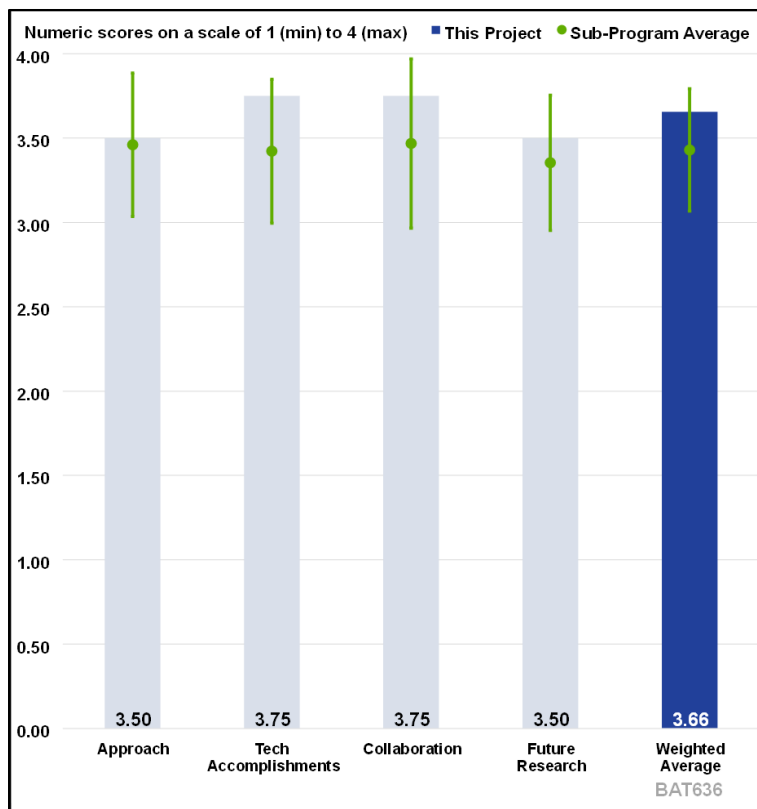


Figure 1-59 - Presentation Number: BAT636 Presentation Title: An Environmentally Sustainable Solution to Completely Recycle and Upcycle Lithium-Ion Battery Components Principal Investigator: Xiaofang Yang, Princeton NuEnergy

Presentation Number:

BAT638

Presentation Title:

Supplying Refined Battery Materials into the U.S. EV Battery Supply Chain by Synergizing Lithium-Ion Battery Recycling with Mine Waste Reclamation

Principal Investigator:

Lei Pan, Michigan Technical University

Presenter

Lei Pan, Michigan Technical University

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 75% of reviewers felt that the resources were sufficient, 25% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT638_Pan_2025_p.pdf

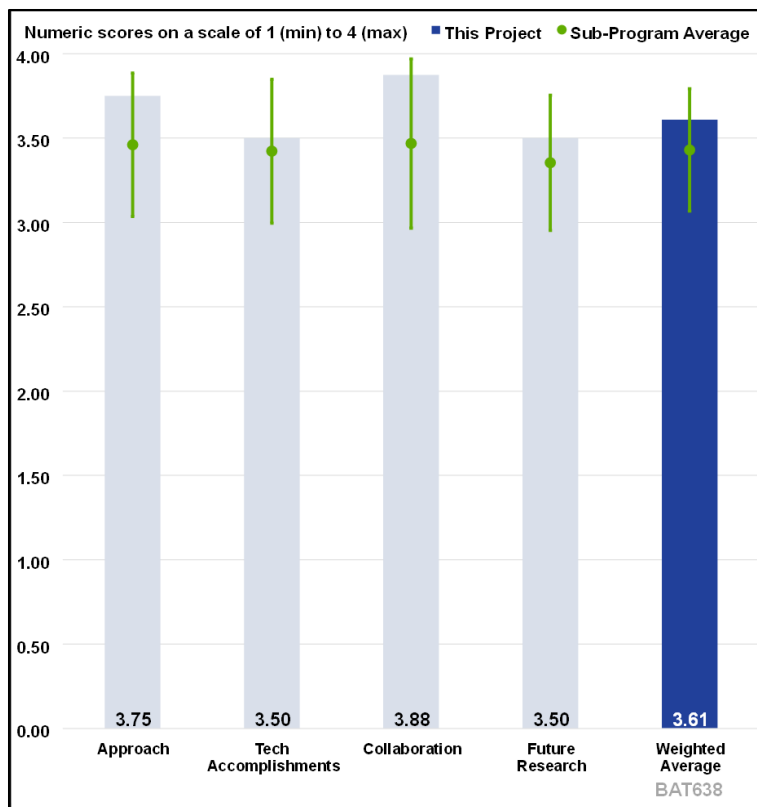


Figure 1-60 - Presentation Number: BAT638 Presentation Title: Supplying Refined Battery Materials into the U.S. EV Battery Supply Chain by Synergizing Lithium-Ion Battery Recycling with Mine Waste Reclamation Principal Investigator: Lei Pan, Michigan Technical University

Presentation Number:

BAT639

Presentation Title:

Advanced Separation and Processing Technologies for an Integrated Lithium-Ion Battery Recycling System

Principal Investigator:

Ryan Melsert, American Battery Technology Company

Presenter

Ryan Melsert, American Battery Technology Company

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

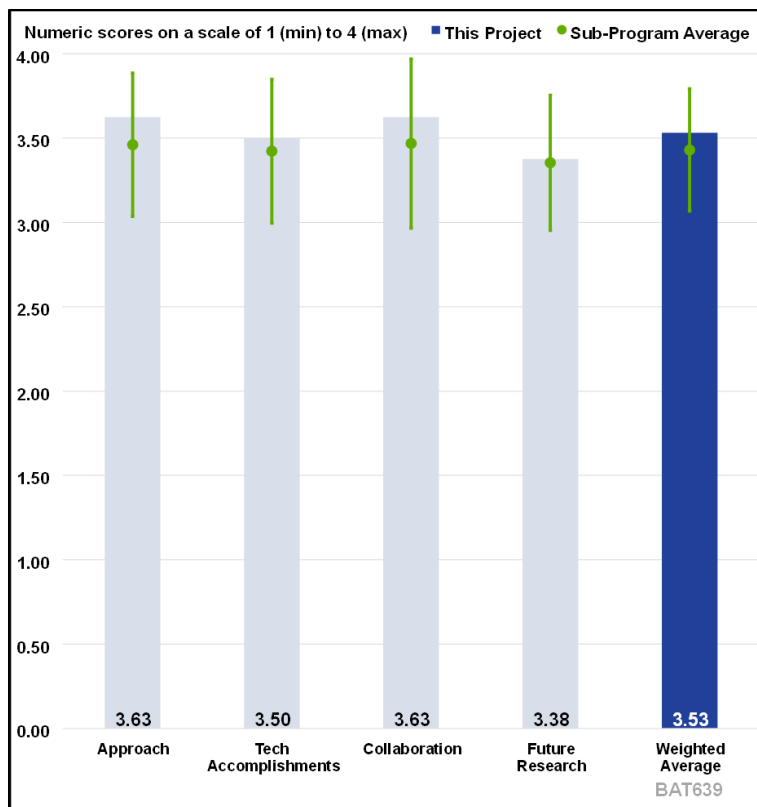


Figure 1-61 - Presentation Number: BAT639 Presentation Title: Advanced Separation and Processing Technologies for an Integrated Lithium-Ion Battery Recycling System Principal Investigator: Ryan Melsert, American Battery Technology Company

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/BAT639_Melsert_2025_p.pdf

Presentation Number:

BAT(ELT303)

Presentation Title:

Second-Life Battery Solar and Storage Facility Demonstration Enabled by Advanced State of Health Tracking

Principal Investigator:

Joe Lacap, RePurpose Energy Inc.

Presenter

Joe Lacap, RePurpose Energy Inc.

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT303_Lacap_2025_p.pdf

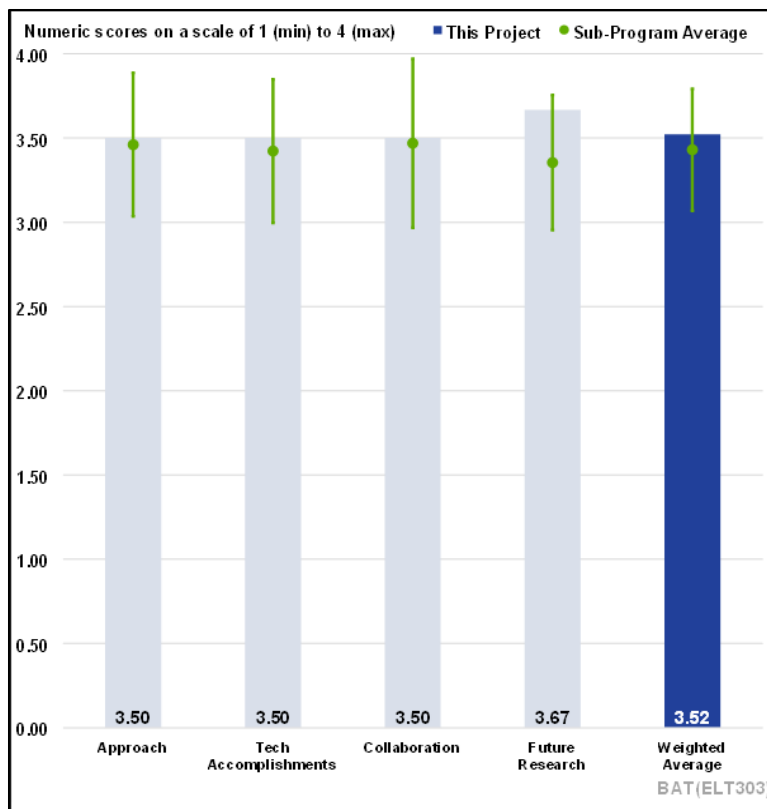


Figure 1-62 - Presentation Number: BAT(ELT303) Presentation Title: Second-Life Battery Solar and Storage Facility Demonstration Enabled by Advanced State of Health Tracking Principal Investigator: Joe Lacap, RePurpose Energy Inc.

Presentation Number:

BAT(ELT304)

Presentation Title:

Low-Cost and Scalable Second Use Battery Demonstration in Central California for Equitable Domestic Manufacturing and Job Growth

Principal Investigator:

Antoni Tong, Smartville Inc.

Presenter

Antoni Tong, Smartville Inc.

Reviewer Sample Size

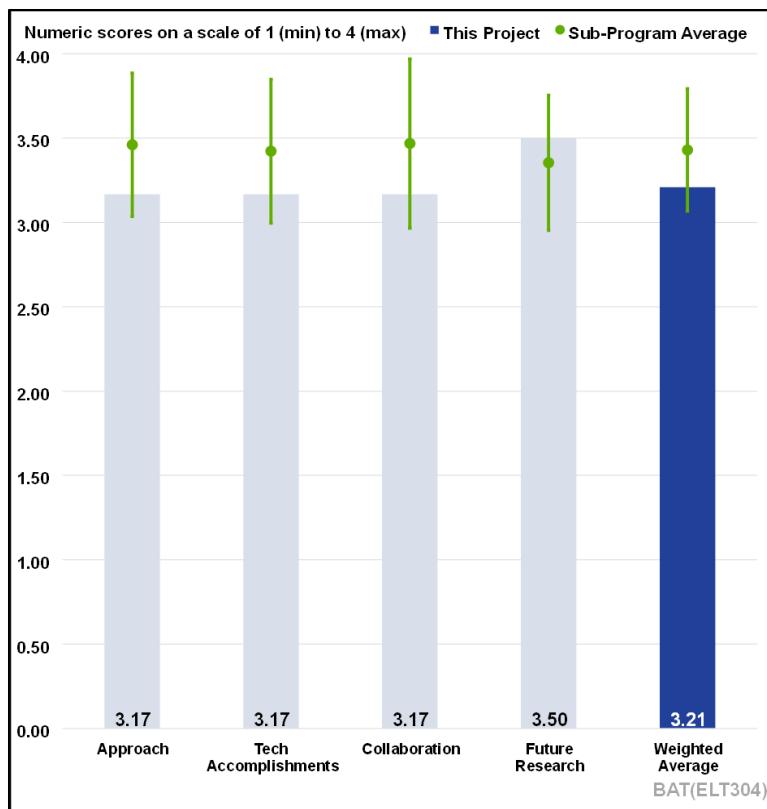
A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 67% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 33% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT304_Tong_2025_p.pdf



Presentation Number:

BAT(ELT305)

Presentation Title:

Second-life Battery in Mobile EV Charging Application for Rural Transportation (SMART)

Principal Investigator:

Pingen Chen, Tennessee Tech University

Presenter

Pingen Chen, Tennessee Tech University

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT305_Chen_2025_p.pdf

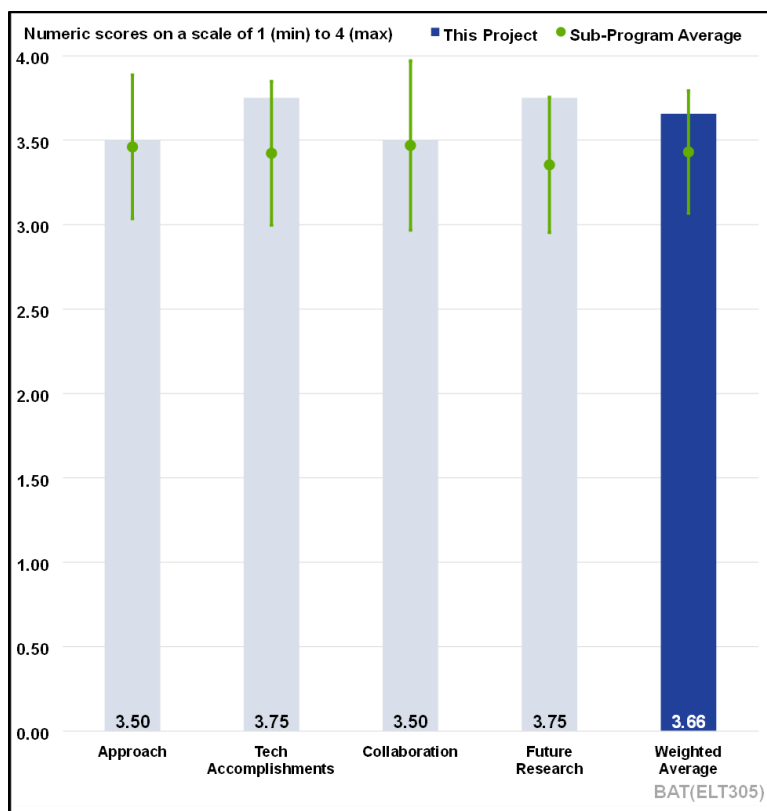


Figure 1-64 - Presentation Number: BAT(ELT305) Presentation Title: Second-life Battery in Mobile EV Charging Application for Rural Transportation (SMART) Principal Investigator: Pingen Chen, Tennessee Tech University

Presentation Number:

BAT(ELT306)

Presentation Title:

Adaptive Second-Use Battery Utilization with Different Degradation Levels for EV Charging Stations and Power Grid

Principal Investigator:

Jaber Qahouq, University of Alabama

Presenter

Jaber Qahouq, University of Alabama

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT306_Qahouq_2025_p.pdf

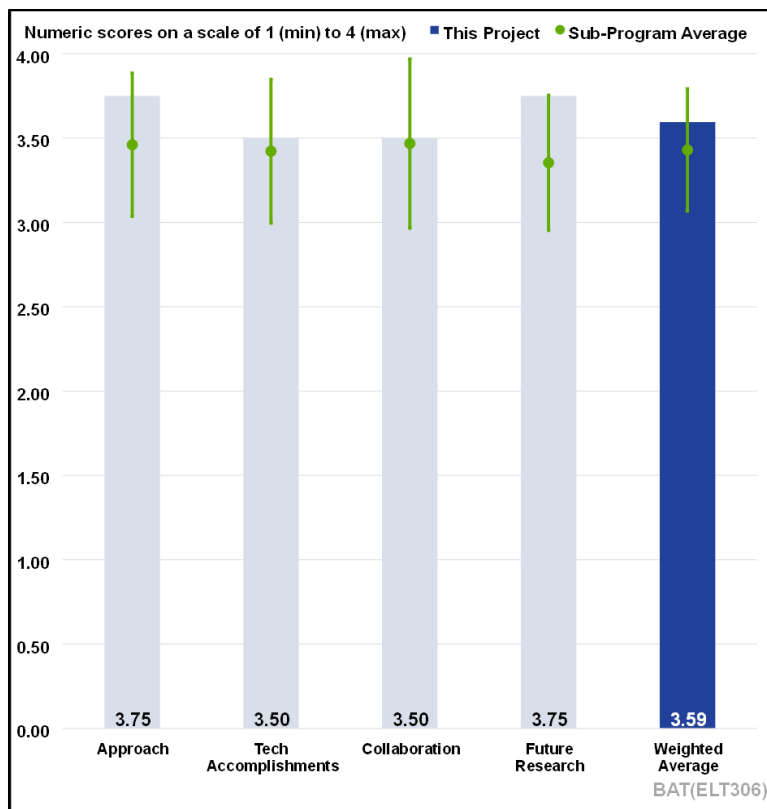


Figure 1-65 - Presentation Number: BAT(ELT306) Presentation Title: Adaptive Second-Use Battery Utilization with Different Degradation Levels for EV Charging Stations and Power Grid Principal Investigator: Jaber Qahouq, University of Alabama

Presentation Number:

BAT(ELT307)

Presentation Title:

13MW Pilot Second-Use Batteries Incorporating Module Level Power Conversion to Improve Battery Safety/ Performance

Principal Investigator:

Seth Kahn, Element Energy, Inc.

Presenter

Seth Kahn, Element Energy, Inc.

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT307_Kahn_2025_p.pdf

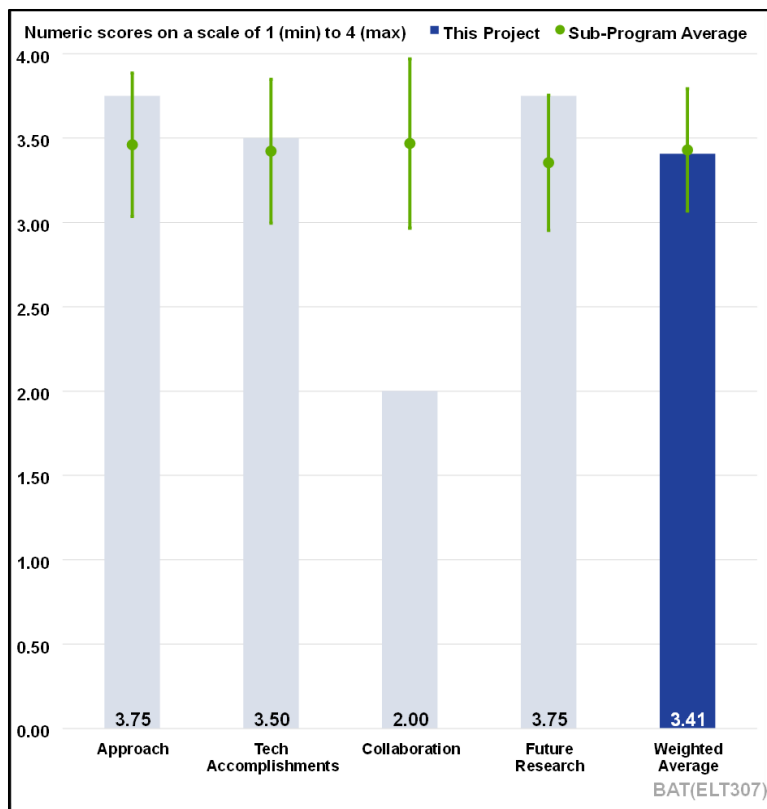


Figure 1-66 - Presentation Number: BAT(ELT307) Presentation Title: 13MW Pilot Second-Use Batteries Incorporating Module Level Power Conversion to Improve Battery Safety/ Performance Principal Investigator: Seth Kahn, Element Energy, Inc.

2. Electrification R&D

The Vehicle Technologies Office (VTO) funds research and development (R&D) of engines, batteries, power electronics, motors, materials, and transportation systems. VTO leverages the unique capabilities and world-class expertise of the national laboratory system to innovate new vehicle technologies. VTO is uniquely positioned to accelerate innovative transportation technologies due to strategic public-private research partnerships with industry (e.g., the U.S. DRIVE Partnership, the 21st Century Truck Partnership) that leverage relevant expertise. These partnerships prevent duplication of effort, focus U.S. Department of Energy (DOE) research on critical R&D barriers, and accelerate progress.

The VTO Electrification Technologies subprogram has two distinct activities:

The Electric Drive R&D activity accelerates domestic electric drive technology with secure supply chains and good paying jobs through early-stage R&D on high-power density motors that have the potential to enable radical new vehicle architectures by dramatic volume/space reductions and increased durability and reliability, while realizing electric drive motors with reduced or zero heavy rare earth (HRE) magnet materials; reducing the cost of electric traction drive systems. These objectives are pursued through core research of motors, high-density integration technologies, leveraging high performance computing for modeling and optimization, and utilizing new materials for high-density electric motors.

The Grid and Infrastructure R&D activity supports seamless integration of innovative transportation solutions with the grid while advancing U.S. energy affordability, reliability, and resilience. Key activities include developing Smart Charge Management technologies to provide more grid services that improve electricity affordability, grid resilience, enable emergency response, and maintain continuity of charging network operations during disruptive events. Additionally, research will inform the development of communication and cybersecurity protocols; enable industry to enhance the interoperability between charging equipment, the on-board vehicle charger, and charging networks; and foster technology innovations to improve plug-in electric vehicle refueling through extreme fast charging. Core research focuses on developing smart charging, extreme fast charging, and wireless charging technologies for reliable and cost-effective charging of light-, medium-, and heavy-duty electric vehicles. This includes the research of technologies related to cybersecurity of electric vehicle charging/supply equipment, and integration with the electric grid.

Project Feedback

In this merit review activity, each reviewer was asked to respond to a series of questions, involving multiple-choice responses, expository responses where text comments were requested, and numeric score responses (on a scale of 1.0 to 4.0). In the pages that follow, the multiple choice and numeric score questions will be presented in graph form for each project. A table presenting the average numeric score for each question for each project is presented below.

Table 2-1 – Project Feedback

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
ELT236	Direct-Current Conversion Equipment Connected to the Medium-Voltage Grid for Extreme Fast Charging Utilizing Modular and Interoperable Architecture	Watson Collins (Electric Power Research Institute)	2-8	3.33	3.17	3.00	3.17	3.19
ELT239	High-Power Inductive Charging System Development and Integration for Mobility	Omer Onar (Oak Ridge National Laboratory)	2-9	3.63	3.75	3.63	3.00	3.67
ELT262	Long-Range, Heavy-Duty Battery-Electric Vehicle with Megawatt Wireless Charging	Ryan Reed (Kenworth)	2-10	3.00	2.83	2.83	2.75	2.88

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
ELT275	Low-Cost Rare-Earth Free Electric Drivetrain Enabled by Novel Permanent Magnets, Inverter, Integrated Design and Advanced Thermal Management	Ayman El-Refaie (Marquette University)	2-11	3.83	3.00	3.50	3.33	3.31
ELT285	Development and Demonstration of Zero-Emission Technologies for Commercial Fleets (SuperTruck 3)	Maarten Meijer (PACCAR Inc.)	2-12	3.50	3.25	3.75	3.25	3.38
ELT286	A Zero Emission Freight Future (SuperTruck 3)	Eric Bond (Volvo)	2-13	3.50	3.50	3.17	3.17	3.42
ELT287	Cummins High Power Density Inverter	Santhosh Krishnamoorthi (Cummins Inc.)	2-14	2.50	2.50	3.17	2.67	2.60
ELT290	Behind-the-Meter Storage	Anthony Burrell (National Renewable Energy Laboratory)	2-15	3.13	3.38	3.13	3.00	3.23
ELT293	Ruggedized Mobile Fast Charger for Off-Road Vehicles	Brij Singh (John Deere)	2-16	3.50	3.40	3.30	3.30	3.40
ELT295	EVs@Scale VGI & SCM	Jesse Bennett (National Renewable Energy Laboratory)	2-17	3.33	3.00	2.67	3.33	3.08

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
ELT296	Charging Infrastructure Interconnection Simplification Resource (CIISR)	Watson Collins (Electric Power Research Institute)	2-18	3.08	3.25	3.33	3.10	3.20
ELT299	EVs@Scale High Power Charging Pillar	John Kisacikoglu (National Renewable Energy Laboratory)	2-19	3.17	3.50	3.50	3.33	3.40
ELT300	EVs@Scale Codes and Standards Pillar	Ted Bohn (Argonne National Laboratory)	2-20	3.50	3.67	3.83	3.17	3.58
ELT301	EVs@Scale Cyber-Physical Security Pillar	Lori Ross-O'Neil (Pacific Northwest National Laboratory)	2-21	3.50	3.63	3.38	3.38	3.53
ELT302	EVs@Scale EV Modeling Toolkit	Andrew Satchwell (Lawrence Berkeley National Laboratory)	2-22	3.33	3.33	3.50	3.00	3.31
ELT310	Multi-Input Integrated Smart Charger-Inverter System with Galvanic Isolation	Sandun Kuruppu (Western Michigan University)	2-23	3.25	3.25	3.38	3.25	3.27
ELT311	Innovative Integrated 3-in-1 Inverter/On Board Charger/Auxiliary DC Converter for Electrified Vehicles Applications	Dhrubo Rahman (Ricardo, Inc.)	2-24	3.67	3.50	2.83	3.33	3.44

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
ELT312	Ultra-low Cost, All-SiC Modular Power Converters for DCFC, Connected to MV Distribution System	Srdjan Lukic (North Carolina State University)	2-25	3.25	3.50	3.13	3.50	3.39
ELT313	Rural Electric Utility Workflow Improvements for Rapid EVSE Deployment (REWired)	Jennah Denney (National Rural Electric Cooperative Association)	2-26	3.30	3.70	3.40	3.30	3.51
ELT314	Electric Vehicle Smart Program Management Interstate Renewable Energy Council (IREC)	Ed Gilliland (Interstate Renewable Energy Council)	2-27	3.50	3.50	3.20	3.50	3.46
ELT315	EPRI GridFAST Express: Roadmap and Actions to Address Key Challenges to the Utility Interconnection Process and Supporting Supply Chain	Watson Collins (Electric Power Research Institute)	2-28	2.67	2.50	2.67	3.17	2.65
ELT317	NEXT DRIVE Task 1: Power Semiconductor Devices	Andrew Binder (Sandia National Laboratories)	2-29	3.50	3.38	3.00	3.25	3.34
ELT318	NEXT DRIVE Task 2: Electric Drive Components – Power Electronics/ Power Modules	Doug DeVoto (National Renewable Energy Laboratory)	2-30	3.25	3.00	3.50	3.50	3.19

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
ELT319	NEXT DRIVE Task 2: Electric Drive Components – Motor Materials and Components	Jun Cui (Oak Ridge National Laboratory)	2-31	3.33	3.00	3.33	3.17	3.15
ELT320	NEXT DRIVE Task 3: High Voltage, High Power Traction Inverters	Gui-Jia Su (Oak Ridge National Laboratory)	2-32	2.88	3.25	3.25	3.38	3.17
ELT321	NEXT DRIVE Task 4: High Torque Heavy Rare Earth Free Motors	Vandana Rallabandi (Oak Ridge National Laboratory)	2-33	3.33	3.00	3.00	3.17	3.10
ELT322	NEXT DRIVE Task 5: Digital Twin Diagnostics and Prognostics	Praveen Kumar (Oak Ridge National Laboratory)	2-34	3.00	2.88	2.88	3.13	2.94
ELT323	GaN-Enabled Dual Multilevel Inverter Integrated Electric Drive System	Khorshed Alam (General Motors)	2-35	3.50	3.50	2.83	3.50	3.42
ELT324	Integrated Three-Level GAN Inverter and PMSYNRM Motor for Electric Passenger Vehicles and Medium/Heavy Duty Trucks (GANIN_PMSYNRM)	Kevin Bai (The University of Tennessee, Knoxville)	2-36	3.67	3.67	3.17	3.17	3.54
ELT325	Stationary Polyphase Wireless Charging for Heavy-Duty Vehicles	Minyu Cai (Cummins Inc.)	2-37	3.38	3.13	3.13	3.13	3.19

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
ELT326	Freight Emissions Reduction from Medium-Duty, Battery Electric and Hydrogen Fuel Cell Trucks with Green Hydrogen Production via a New Electrolyzer Design and Electrical Utility Grid Coupling	Jacob Lozier (General Motors)	2-38	3.67	3.50	3.83	3.33	3.56
ELT327	High Efficiency Fuel Cell Application for Medium Duty Truck Vocations	Stan Bower (Ford Motor Company)	2-39	3.83	3.83	3.83	3.67	3.81
ELT328	Ultra-Efficient Long-Haul Hydrogen Fuel Cell Tractor	Darek Villeneuve (Daimler Truck North America)	2-40	3.75	3.75	4.00	3.50	3.75
Overall Average				3.35	3.30	3.27	3.24	3.30

Presentation Number:

ELT236

Presentation Title:

Direct-Current Conversion Equipment Connected to the Medium-Voltage Grid for Extreme Fast Charging Utilizing Modular and Interoperable Architecture

Principal Investigator:

Watson Collins, Electric Power Research Institute

Presenter

Krish Gomaton, Electric Power Research Institute

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT236_Collins_2025_o.pdf

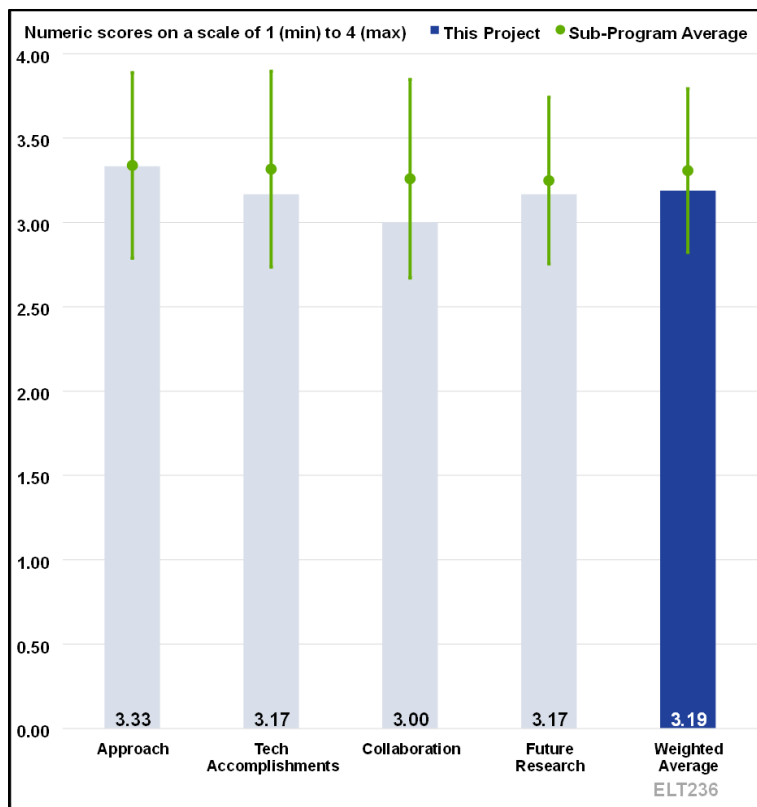


Figure 2-1 - Presentation Number: ELT236 Presentation Title: Direct-Current Conversion Equipment Connected to the Medium-Voltage Grid for Extreme Fast Charging Utilizing Modular and Interoperable Architecture Principal Investigator: Watson Collins, Electric Power Research Institute

Presentation Number:

ELT239

Presentation Title:

High-Power Inductive Charging System Development and Integration for Mobility

Principal Investigator:

Omer Onar, Oak Ridge National Laboratory

Presenter

Omer Onar, Oak Ridge National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

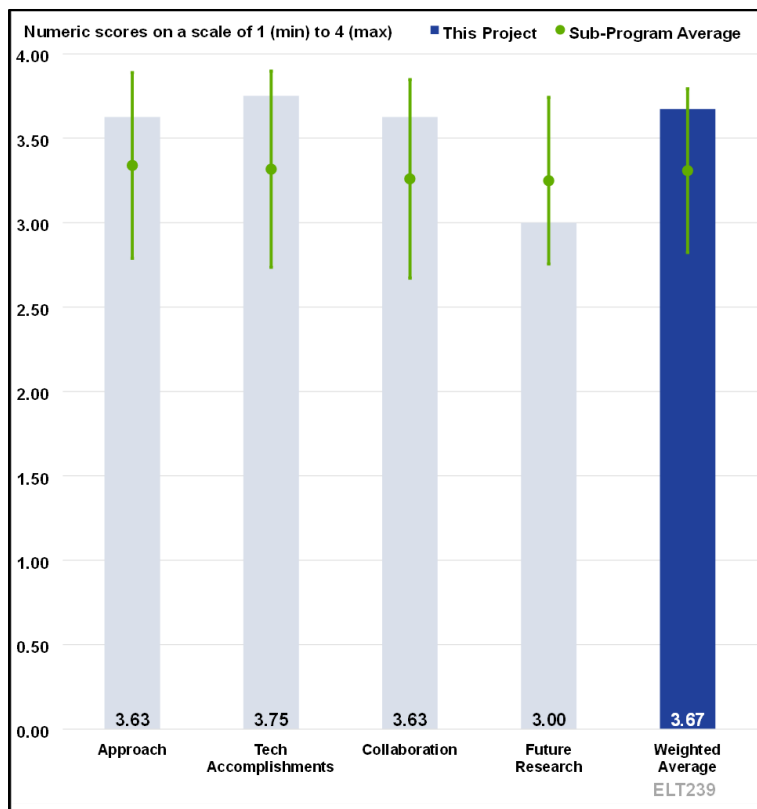


Figure 2-2 - Presentation Number: ELT239 Presentation Title: High-Power Inductive Charging System Development and Integration for Mobility Principal Investigator: Omer Onar, Oak Ridge National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT239_Onar_2025_o.pdf

Presentation Number:

ELT262

Presentation Title:

Long-Range, Heavy-Duty Battery-Electric Vehicle with Megawatt Wireless Charging

Principal Investigator:

Ryan Reed, Kenworth

Presenter

Ryan Reed, Kenworth

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT262_Reed_2025_o.pdf

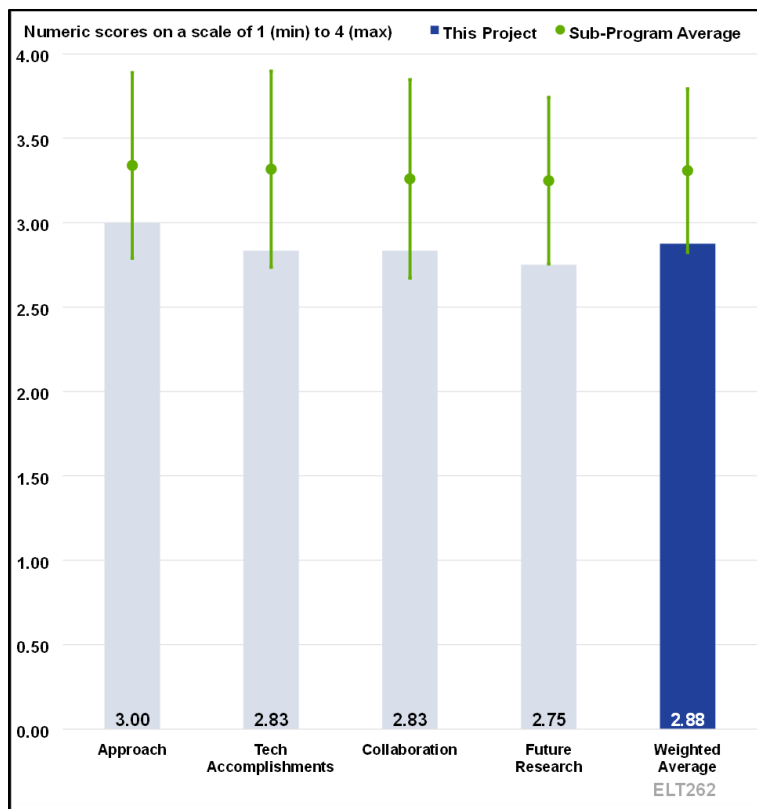


Figure 2-3 - Presentation Number: ELT262 Presentation Title: Long-Range, Heavy-Duty Battery-Electric Vehicle with Megawatt Wireless Charging Principal Investigator: Ryan Reed, Kenworth

Presentation Number:

ELT275

Presentation Title:

Low-Cost Rare-Earth Free Electric Drivetrain Enabled by Novel Permanent Magnets, Inverter, Integrated Design and Advanced Thermal Management

Principal Investigator:

Ayman El-Refaie, Marquette University

Presenter

Ayman El-Refaie, Marquette University

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 67% of reviewers felt that the resources were sufficient, 33% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT275_El-Refaie_2025_o.pdf

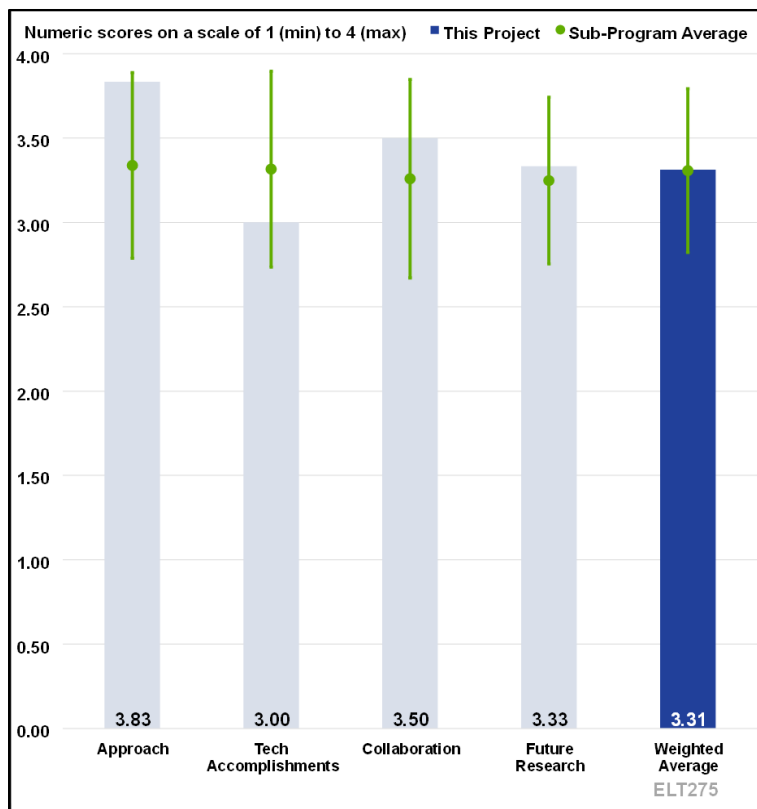


Figure 2-4 - Presentation Number: ELT275 Presentation Title: Low-Cost Rare-Earth Free Electric Drivetrain Enabled by Novel Permanent Magnets, Inverter, Integrated Design and Advanced Thermal Management Principal Investigator: Ayman El-Refaie, Marquette University

Presentation Number:

ELT285

Presentation Title:

Development and Demonstration of Zero-Emission Technologies for Commercial Fleets (SuperTruck 3)

Principal Investigator:

Maarten Meijer, PACCAR Inc.

Presenter

Maarten Meijer, PACCAR Inc.

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 50% of reviewers felt that the resources were sufficient, 50% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT285_Meijer_2025_o.pdf

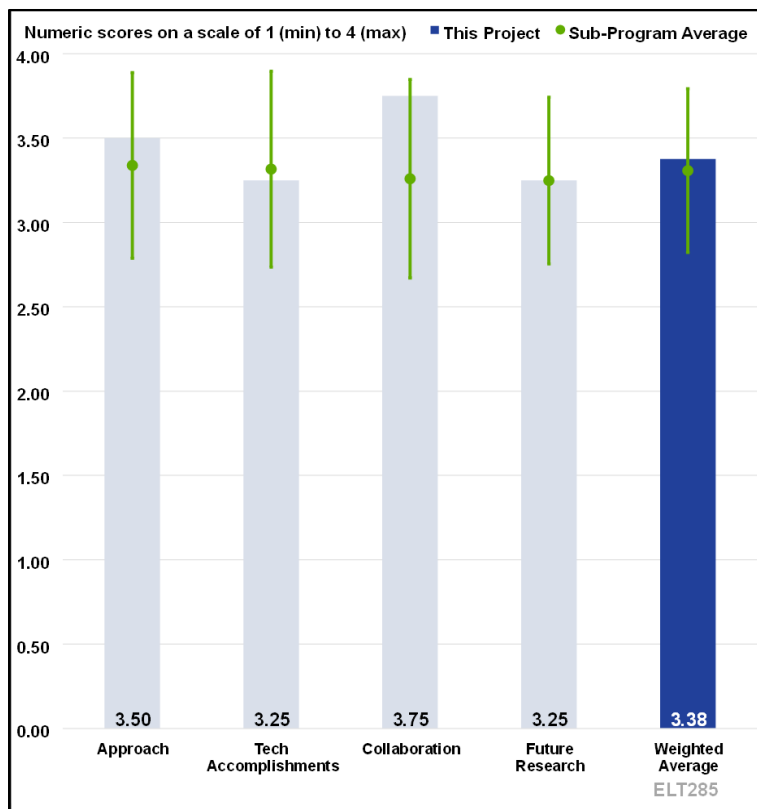


Figure 2-5 - Presentation Number: ELT285 Presentation Title: Development and Demonstration of Zero-Emission Technologies for Commercial Fleets (SuperTruck 3) Principal Investigator: Maarten Meijer, PACCAR Inc.

Presentation Number:

ELT286

Presentation Title:

A Zero Emission Freight Future
(SuperTruck 3)

Principal Investigator:

Eric Bond, Volvo

Presenter

Eric Bond, Volvo

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT286_Bond_2025_o.pdf

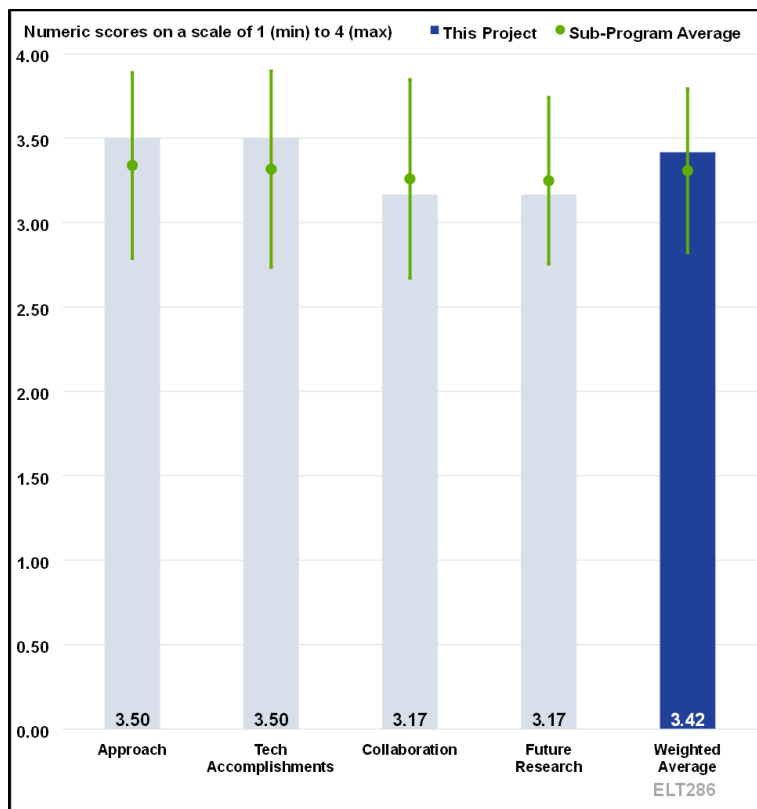


Figure 2-6 - Presentation Number: ELT286 Presentation Title: A Zero Emission Freight Future (SuperTruck 3) Principal Investigator: Eric Bond, Volvo

Presentation Number:

ELT287

Presentation Title:

Cummins High Power Density Inverter

Principal Investigator:

Santhosh Krishnamoorthi, Cummins Inc.

Presenter

Santhosh Krishnamoorthi, Cummins Inc.

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT287_Krishnamoor_2025_o.pdf

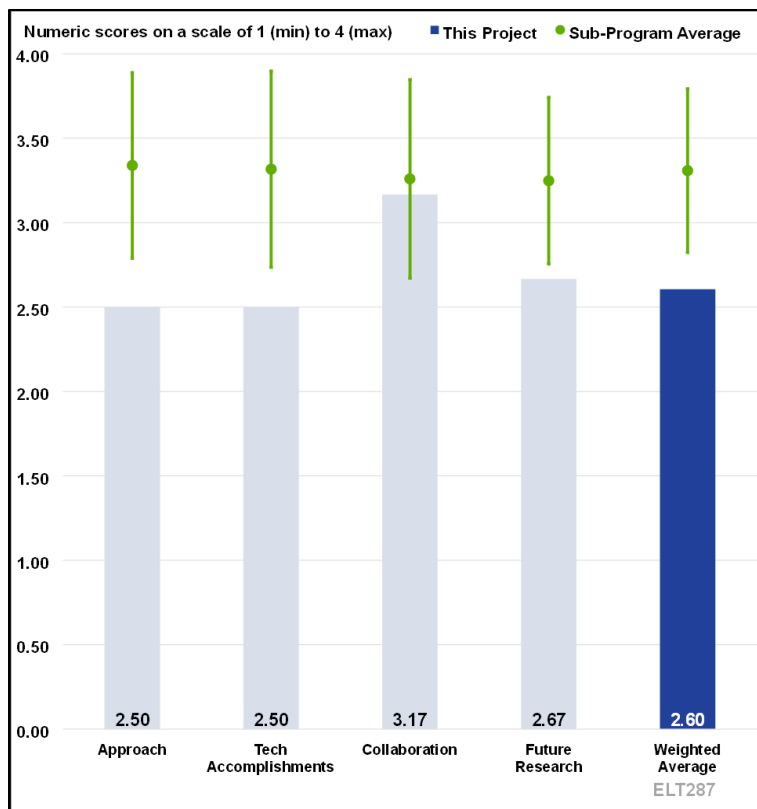


Figure 2-7 - Presentation Number: ELT287 Presentation Title: Cummins High Power Density Inverter Principal Investigator: Santhosh Krishnamoorthi, Cummins Inc.

Presentation Number:

ELT290

Presentation Title:

Behind-the-Meter Storage

Principal Investigator:

Anthony Burrell, National Renewable Energy Laboratory

Presenter

John Kisacikoglu, National Renewable Energy Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 75% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 25% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT290_Burrell_2025_o.pdf

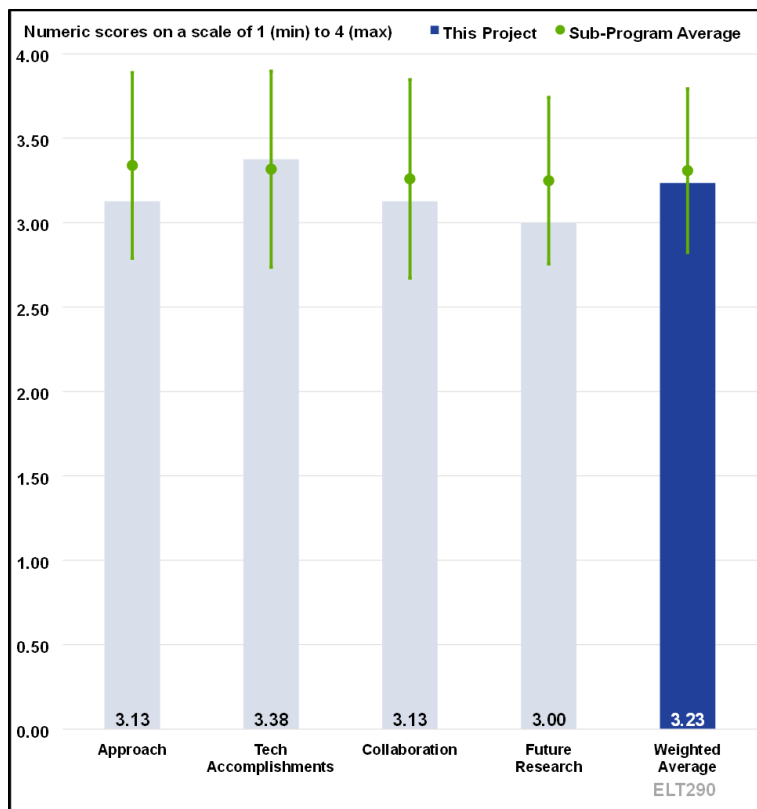


Figure 2-8 - Presentation Number: ELT290 Presentation Title: Behind-the-Meter Storage Principal Investigator: Anthony Burrell, National Renewable Energy Laboratory

Presentation Number:

ELT293

Presentation Title:

Ruggedized Mobile Fast Charger for Off-Road Vehicles

Principal Investigator:

Brij Singh, John Deere

Presenter

Brij Singh, John Deere

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

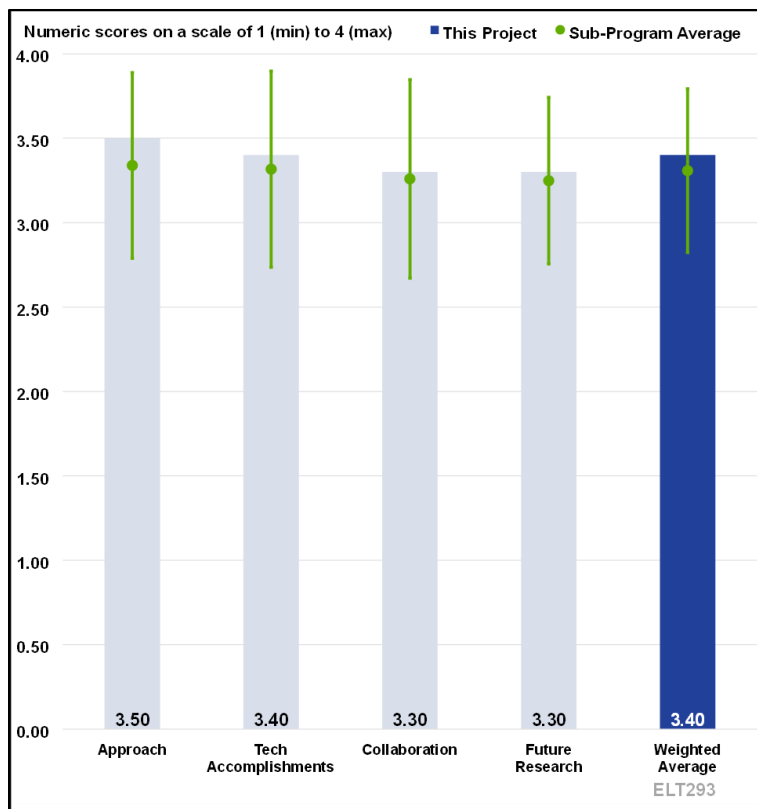


Figure 2-9 - Presentation Number: ELT293 Presentation Title: Ruggedized Mobile Fast Charger for Off-Road Vehicles Principal Investigator: Brij Singh, John Deere

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT293_Singh_2025_o.pdf

Presentation Number:

ELT295

Presentation Title:

EVs@Scale VGI & SCM

Principal Investigator:

Jesse Bennett, National Renewable Energy Laboratory

Presenter

Jesse Bennett, National Renewable Energy Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

67% of reviewers felt that the project was relevant to current DOE objectives, 33% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 67% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 33% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

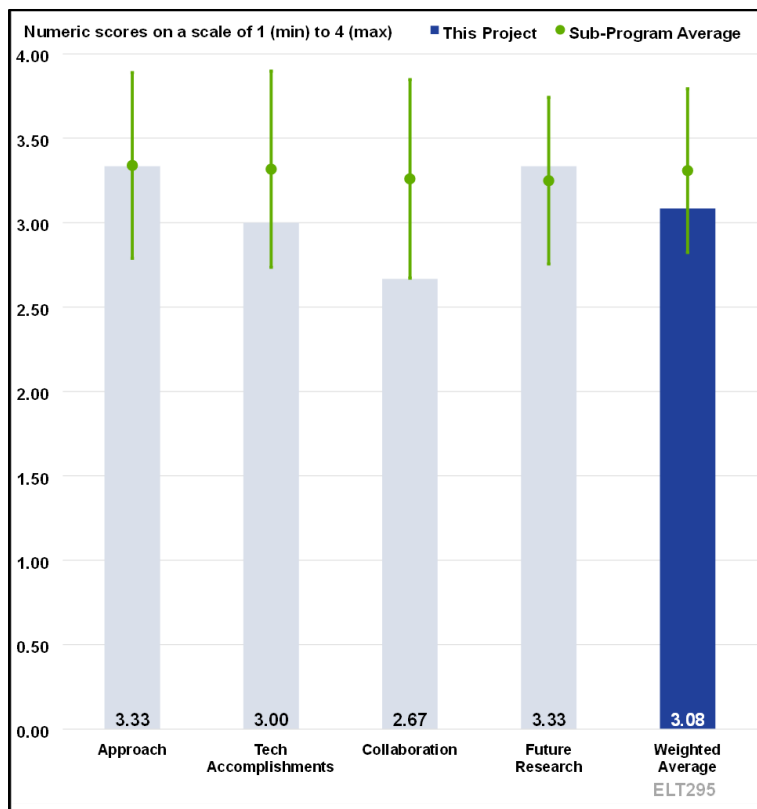


Figure 2-10 - Presentation Number: ELT295 Presentation Title: EVs@Scale VGI & SCM Principal Investigator: Jesse Bennett, National Renewable Energy Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT295_Bennett_2025_o.pdf

Presentation Number:

ELT296

Presentation Title:

Charging Infrastructure
Interconnection Simplification
Resource (CIISR)

Principal Investigator:

Watson Collins, Electric Power
Research Institute

Presenter

Watson Collins, Electric Power
Research Institute

Reviewer Sample Size

A total of six reviewers evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the
project was relevant to current DOE
objectives, 0% of reviewers felt that
the project was not relevant, and
0% of reviewers did not indicate an
answer. 100% of reviewers felt that
the resources were sufficient, 0%
of reviewers felt that the resources
were insufficient, 0% of reviewers
felt that the resources were
excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT296_Collins_2025_o.pdf

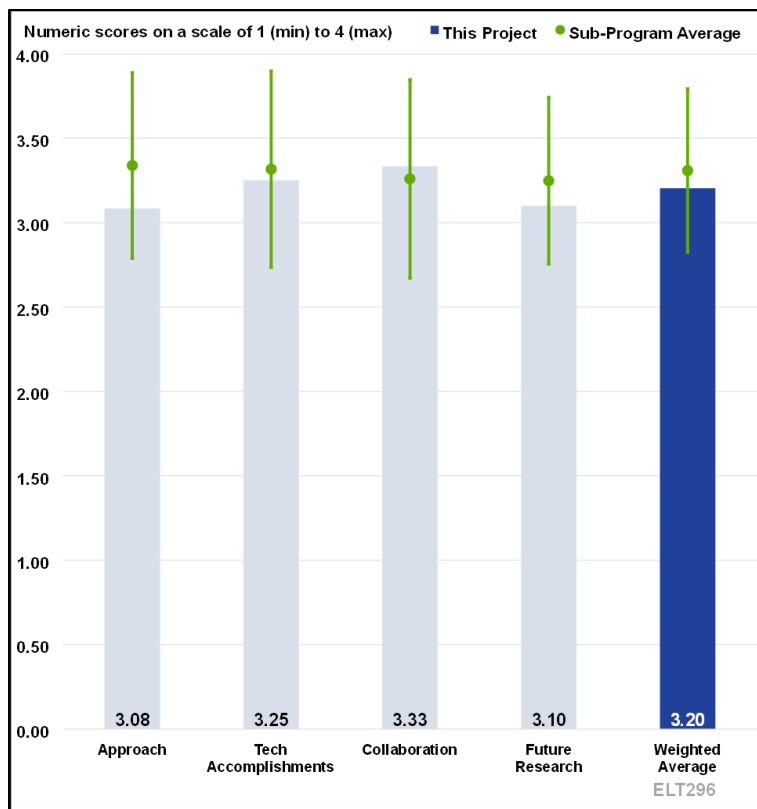


Figure 2-11 - Presentation Number: ELT296 Presentation Title: Charging Infrastructure Interconnection Simplification Resource (CIISR) Principal Investigator: Watson Collins, Electric Power Research Institute

Presentation Number:

ELT299

Presentation Title:

EVs@Scale High Power Charging Pillar

Principal Investigator:

John Kisacikoglu, National Renewable Energy Laboratory

Presenter

Alastair Thurlbeck, National Renewable Energy Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT299_Kisacikoglu_2025_o.pdf

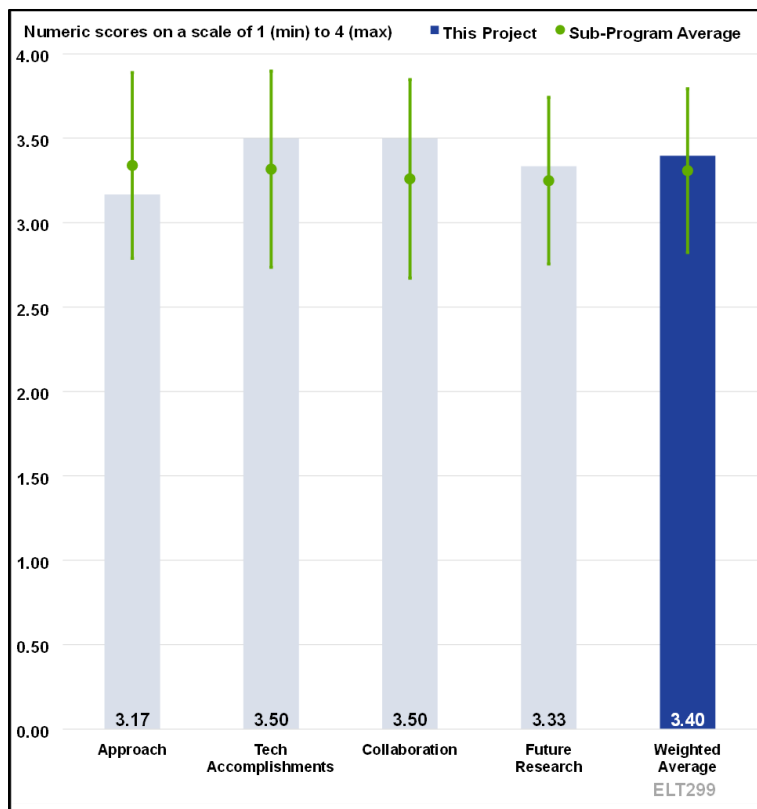


Figure 2-12 - Presentation Number: ELT299 Presentation Title: EVs@Scale High Power Charging Pillar Principal Investigator: John Kisacikoglu, National Renewable Energy Laboratory

Presentation Number:

ELT300

Presentation Title:

EVs@Scale Codes and Standards Pillar

Principal Investigator:

Ted Bohn, Argonne National Laboratory

Presenter

Ted Bohn, Argonne National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 67% of reviewers felt that the resources were sufficient, 33% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT300_Bohn_2025_o.pdf

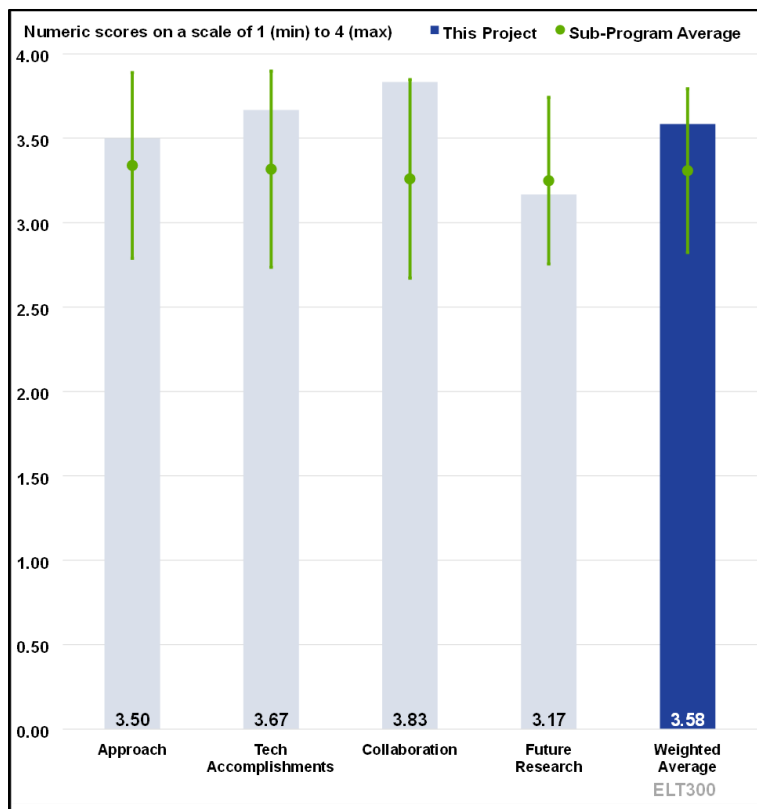


Figure 2-13 - Presentation Number: ELT300 Presentation Title: EVs@Scale Codes and Standards Pillar Principal Investigator: Ted Bohn, Argonne National Laboratory

Presentation Number:

ELT301

Presentation Title:

EVs@Scale Cyber-Physical
Security Pillar

Principal Investigator:

Lori Ross-O'Neil, Pacific Northwest
National Laboratory

Presenter

Lori Ross-O'Neil, Pacific Northwest
National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the
project was relevant to current DOE
objectives, 0% of reviewers felt that
the project was not relevant, and
0% of reviewers did not indicate an
answer. 75% of reviewers felt that
the resources were sufficient, 25%
of reviewers felt that the resources
were insufficient, 0% of reviewers
felt that the resources were
excessive, and 0% of reviewers did
not indicate an answer.

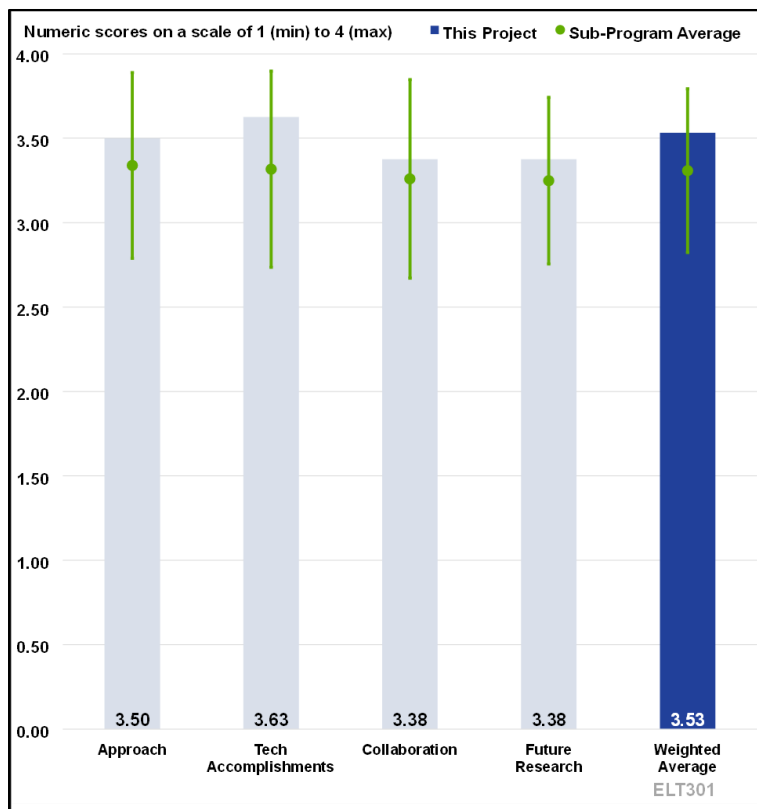


Figure 2-14 - Presentation Number: ELT301 Presentation Title: EVs@Scale Cyber-Physical Security Pillar Principal Investigator: Lori Ross-O'Neil, Pacific Northwest National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT301_ONeill_2025_o.pdf

Presentation Number:

ELT302

Presentation Title:

EVs@Scale EV Modeling Toolkit

Principal Investigator:

Andrew Satchwell, Lawrence Berkeley National Laboratory

Presenter

Eric Wood, National Renewable Energy Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT302_Wood_2025_o.pdf

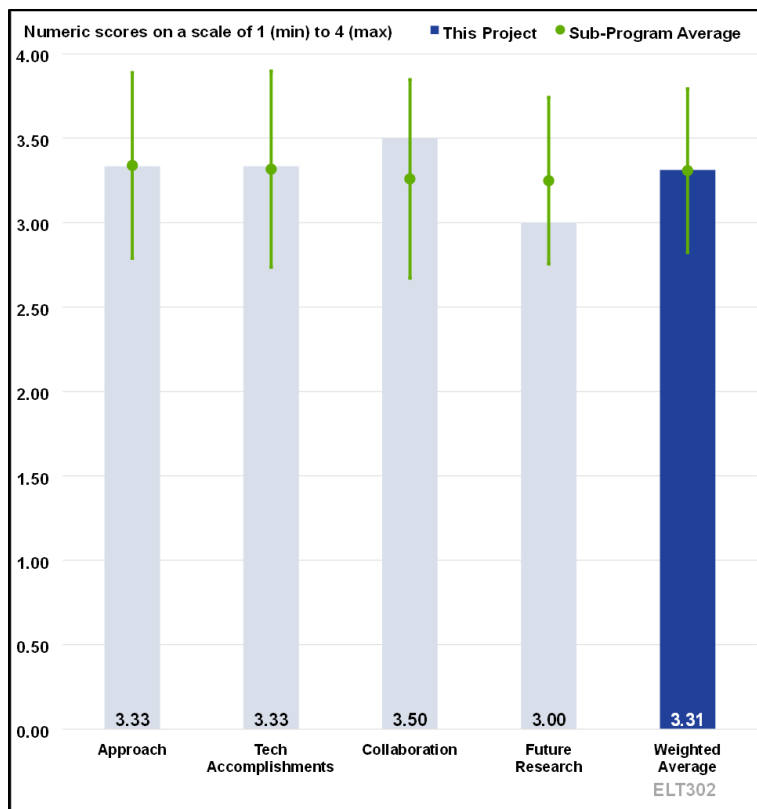


Figure 2-15 - Presentation Number: ELT302 Presentation Title: EVs@Scale EV Modeling Toolkit Principal Investigator: Andrew Satchwell, Lawrence Berkeley National Laboratory

Presentation Number:

ELT310

Presentation Title:

Multi-Input Integrated Smart Charger-Inverter System with Galvanic Isolation

Principal Investigator:

Sandun Kuruppu, Western Michigan University

Presenter

Sandun Kuruppu, Western Michigan University

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT310_Kuruppu_2025_o.pdf

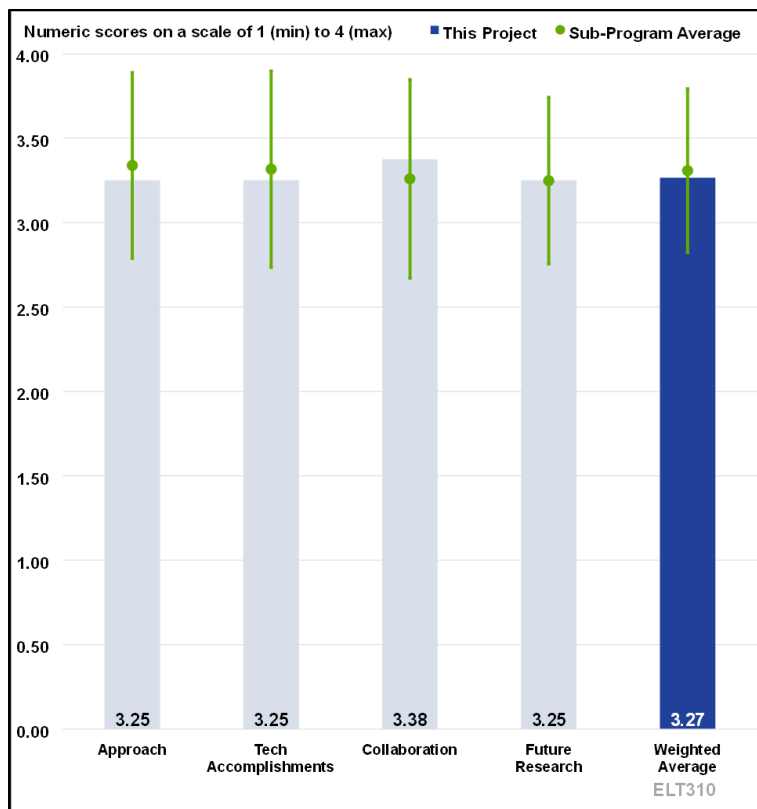


Figure 2-16 - Presentation Number: ELT310 Presentation Title: Multi-Input Integrated Smart Charger-Inverter System with Galvanic Isolation Principal Investigator: Sandun Kuruppu, Western Michigan University

Presentation Number:

ELT311

Presentation Title:

Innovative Integrated 3-in-1 Inverter/On Board Charger/Auxiliary DC Converter for Electrified Vehicles Applications

Principal Investigator:

Dhrubo Rahman, Ricardo, Inc.

Presenter

Dhrubo Rahman, Ricardo, Inc.

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT311_Rahman_2025_o.pdf

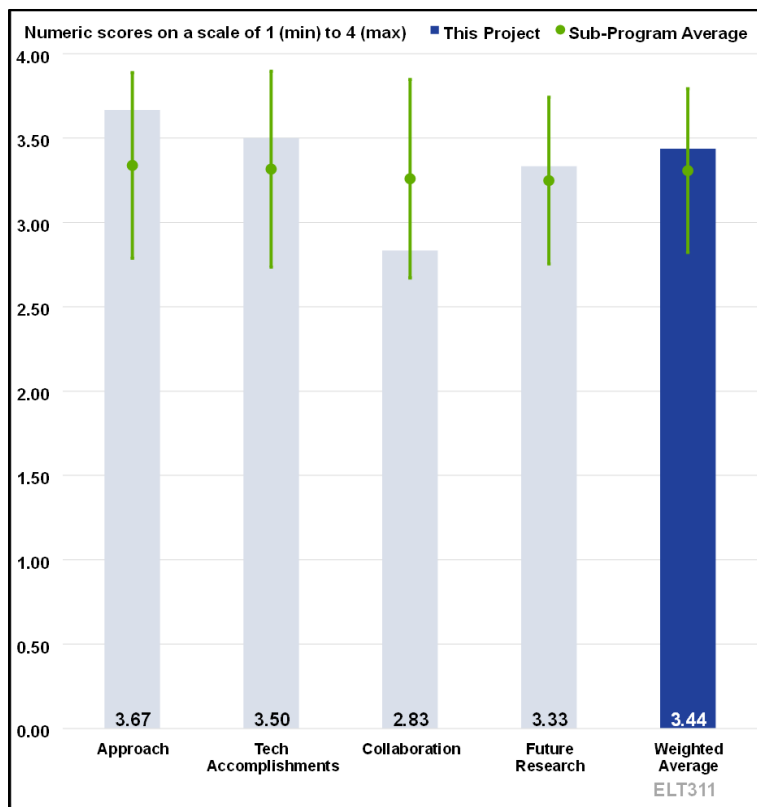


Figure 2-17 - Presentation Number: ELT311 Presentation Title: Innovative Integrated 3-in-1 Inverter/On Board Charger/Auxiliary DC Converter for Electrified Vehicles Applications Principal Investigator: Dhrubo Rahman, Ricardo, Inc.

Presentation Number:

ELT312

Presentation Title:

Ultra-low Cost, All-SiC Modular Power Converters for DCFC, Connected to MV Distribution System

Principal Investigator:

Srdjan Lukic, North Carolina State University

Presenter

Srdjan Lukic, North Carolina State University

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT312_Lukic_2025_o.pdf

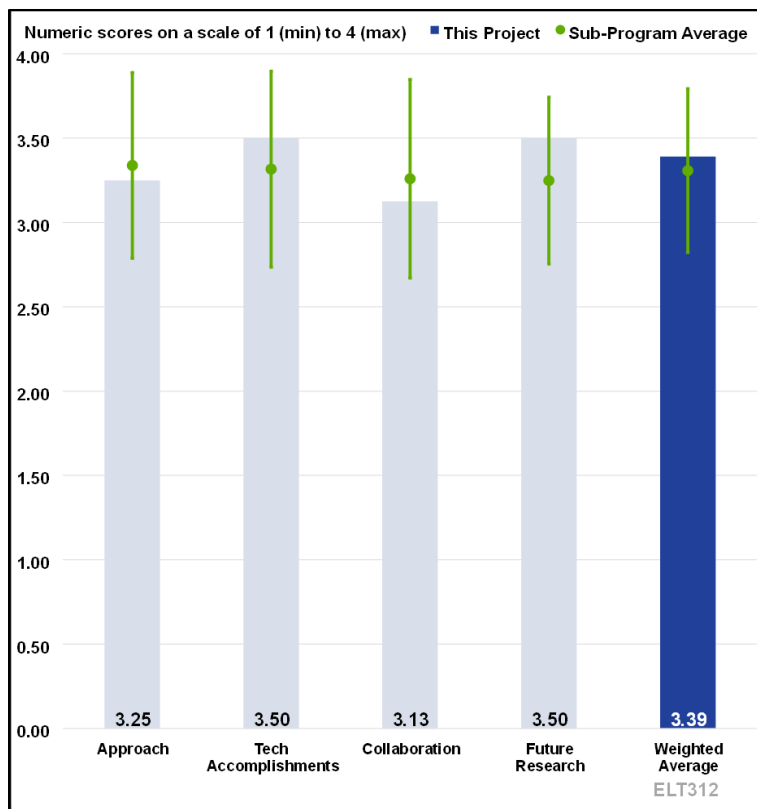


Figure 2-18 - Presentation Number: ELT312 Presentation Title: Ultra-low Cost, All-SiC Modular Power Converters for DCFC, Connected to MV Distribution System Principal Investigator: Srdjan Lukic, North Carolina State University

Presentation Number:

ELT313

Presentation Title:

Rural Electric Utility Workflow Improvements for Rapid EVSE Deployment (REWIREd)

Principal Investigator:

Jennah Denney, National Rural Electric Cooperative Association

Presenter

Jennah Denney, National Rural Electric Cooperative Association

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

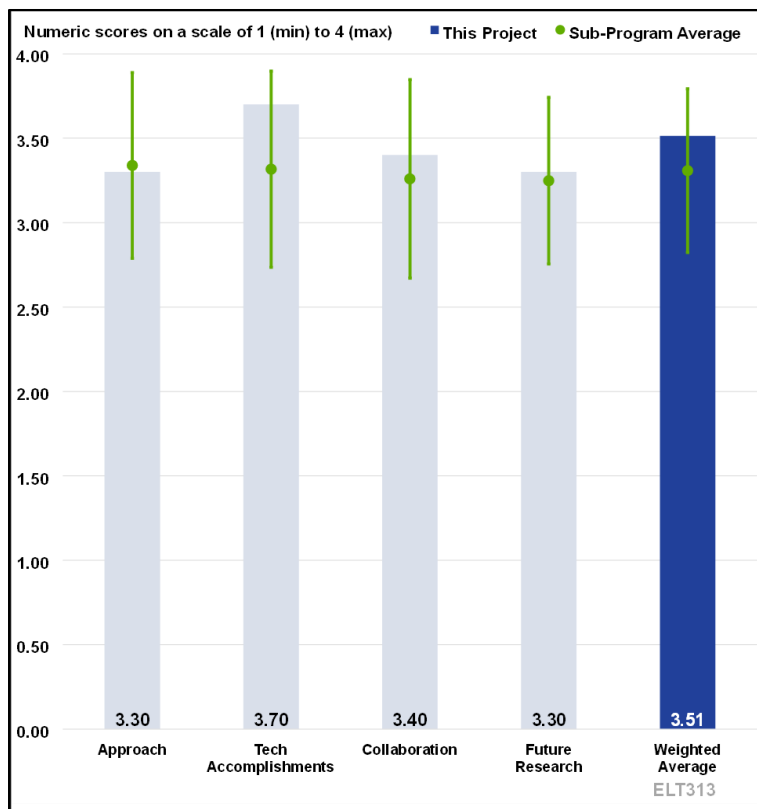


Figure 2-19 - Presentation Number: ELT313 Presentation Title: Rural Electric Utility Workflow Improvements for Rapid EVSE Deployment (REWIREd) Principal Investigator: Jennah Denney, National Rural Electric Cooperative Association

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT313_Denney_2025_o.pdf

Presentation Number:

ELT314

Presentation Title:

Electric Vehicle Smart Program Management Interstate Renewable Energy Council (IREC)

Principal Investigator:

Ed Gilliland, Interstate Renewable Energy Council

Presenter

Ed Gilliland, Interstate Renewable Energy Council

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

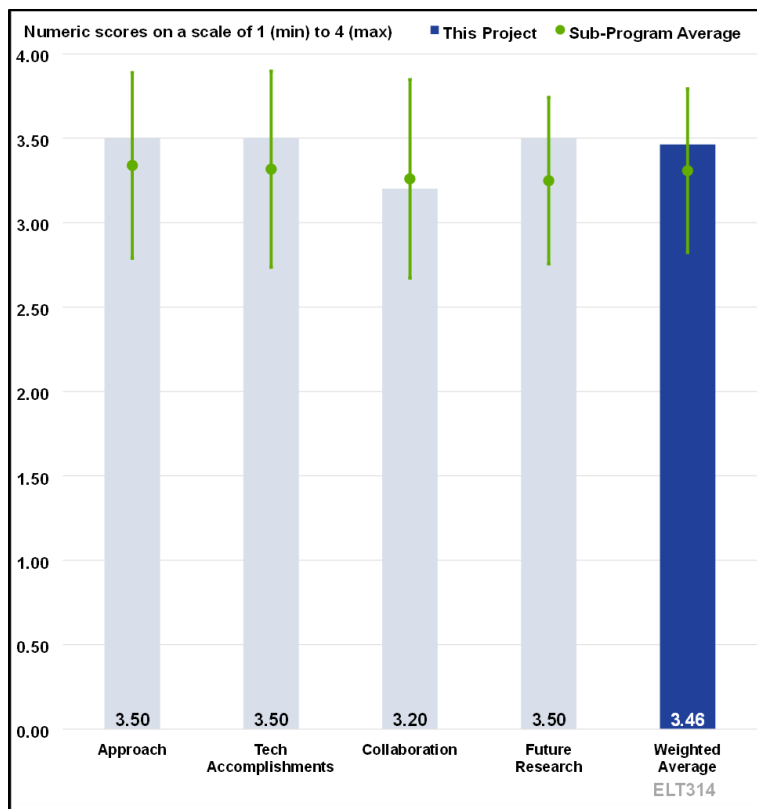


Figure 2-20 - Presentation Number: ELT314 Presentation Title: Electric Vehicle Smart Program Management Interstate Renewable Energy Council (IREC) Principal Investigator: Ed Gilliland, Interstate Renewable Energy Council

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT314_Gilliland_2025_o.pdf

Presentation Number:

ELT315

Presentation Title:

EPRIGridFAST Express: Roadmap and Actions to Address Key Challenges to the Utility Interconnection Process and Supporting Supply Chain

Principal Investigator:

Watson Collins, Electric Power Research Institute

Presenter

Watson Collins, Electric Power Research Institute

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 67% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 33% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT315_Collins_2025_o.pdf

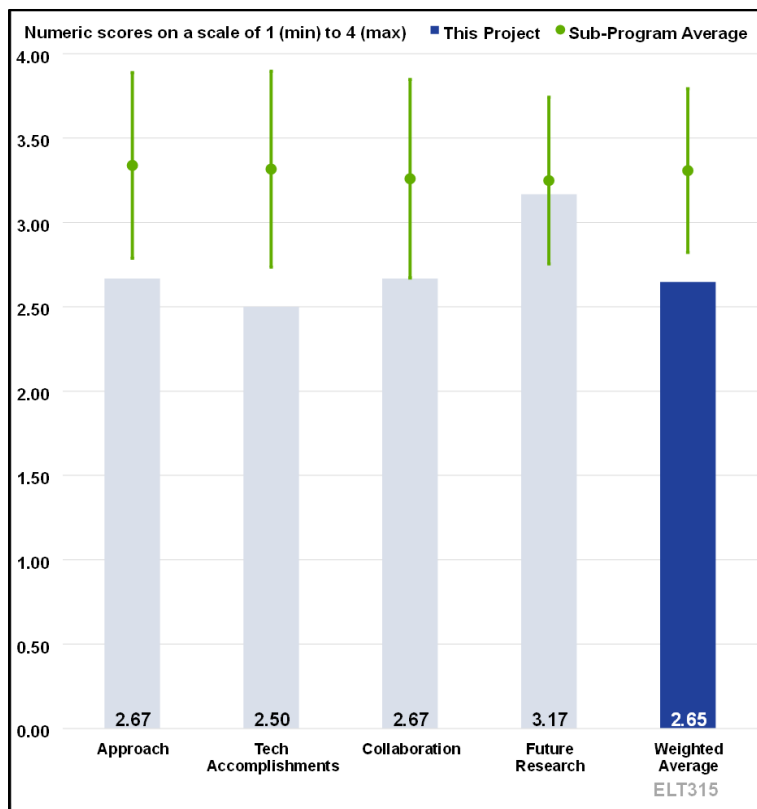


Figure 2-21 - Presentation Number: ELT315 Presentation Title: EPRIGridFAST Express: Roadmap and Actions to Address Key Challenges to the Utility Interconnection Process and Supporting Supply Chain Principal Investigator: Watson Collins, Electric Power Research Institute

Presentation Number:

ELT317

Presentation Title:

NEXT DRIVE Task 1: Power Semiconductor Devices

Principal Investigator:

Andrew Binder, Sandia National Laboratories

Presenter

Andrew Binder, Sandia National Laboratories

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT317_Binder_2025_o.pdf

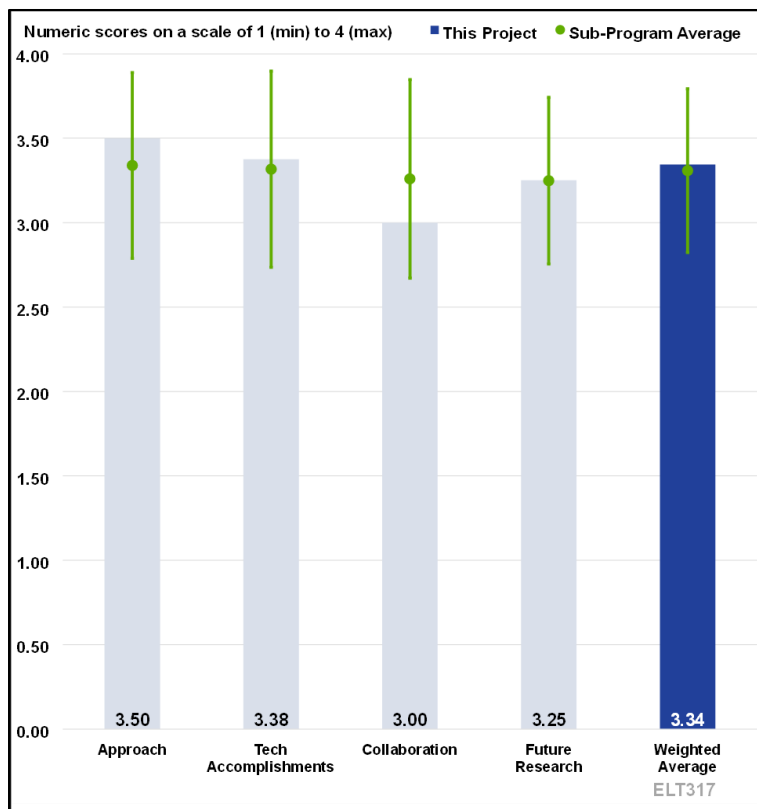


Figure 2-22 - Presentation Number: ELT317 Presentation Title: NEXT DRIVE Task 1: Power Semiconductor Devices Principal Investigator: Andrew Binder, Sandia National Laboratories

Presentation Number:

ELT318

Presentation Title:

NEXT DRIVE Task 2: Electric Drive Components – Power Electronics/ Power Modules

Principal Investigator:

Doug DeVoto, National Renewable Energy Laboratory

Presenter

Doug DeVoto, National Renewable Energy Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT318_DeVoto_2025_o.pdf

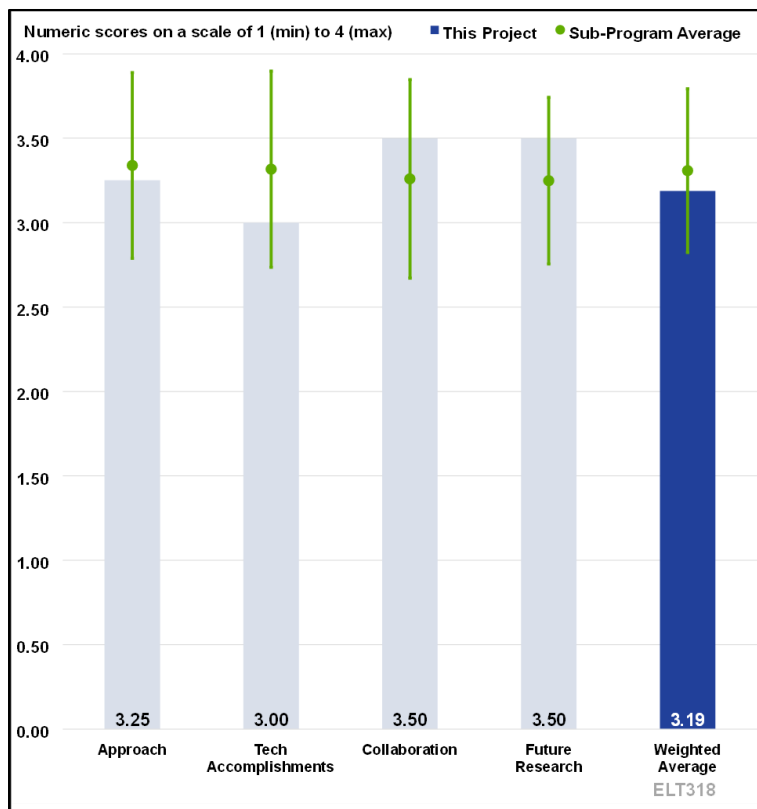


Figure 2-23 - Presentation Number: ELT318 Presentation Title: NEXT DRIVE Task 2: Electric Drive Components – Power Electronics/ Power Modules Principal Investigator: Doug DeVoto, National Renewable Energy Laboratory

Presentation Number:

ELT319

Presentation Title:

NEXT DRIVE Task 2: Electric Drive Components – Motor Materials and Components

Principal Investigator:

Jun Cui, Oak Ridge National Laboratory

Presenter

Jun Cui, Oak Ridge National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT319_Cui_2025_o.pdf

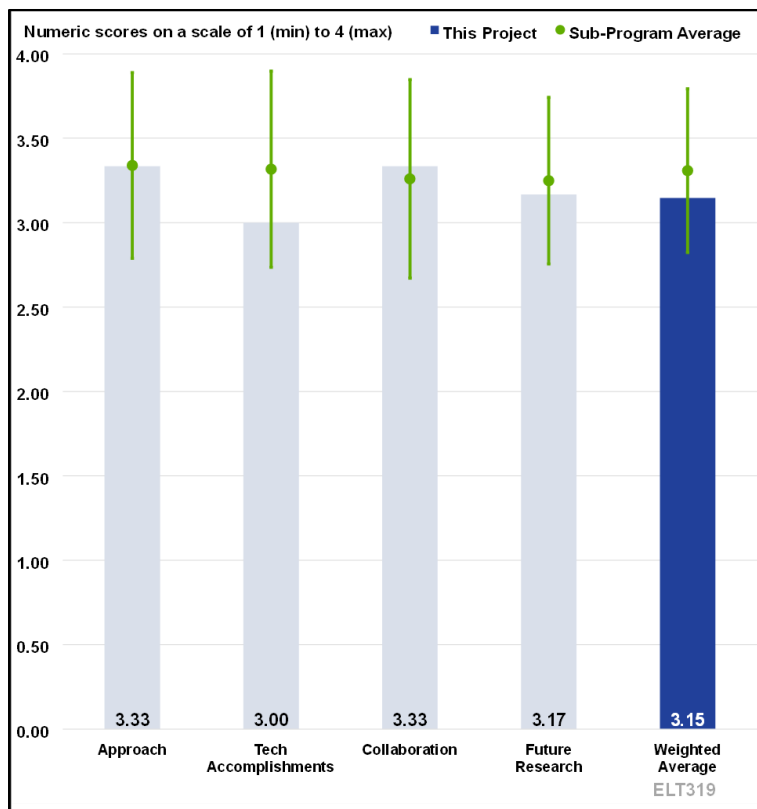


Figure 2-24 - Presentation Number: ELT319 Presentation Title: NEXT DRIVE Task 2: Electric Drive Components – Motor Materials and Components Principal Investigator: Jun Cui, Oak Ridge National Laboratory

Presentation Number:

ELT320

Presentation Title:

NEXT DRIVE Task 3: High Voltage, High Power Traction Inverters

Principal Investigator:

Gui-Jia Su, Oak Ridge National Laboratory

Presenter

Gui-Jia Su, Oak Ridge National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

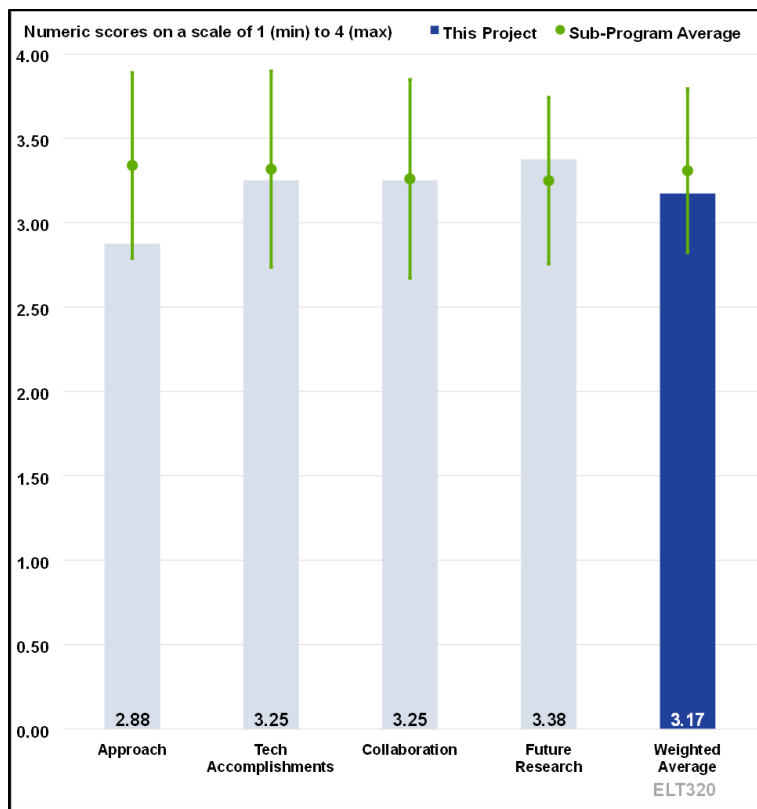


Figure 2-25 - Presentation Number: ELT320 Presentation Title: NEXT DRIVE Task 3: High Voltage, High Power Traction Inverters Principal Investigator: Gui-Jia Su, Oak Ridge National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT320_Su_2025_o.pdf

Presentation Number:

ELT321

Presentation Title:

NEXT DRIVE Task 4: High Torque Heavy Rare Earth Free Motors

Principal Investigator:

Vandana Rallabandi, Oak Ridge National Laboratory

Presenter

Vandana Rallabandi, Oak Ridge National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT321_Rallabandi_2025_o.pdf

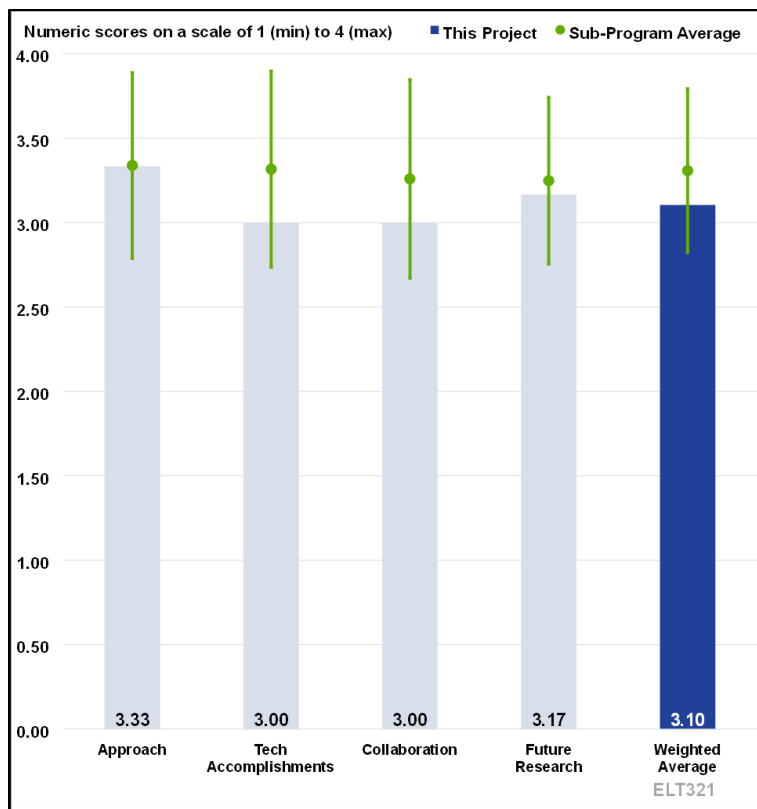


Figure 2-26 - Presentation Number: ELT321 Presentation Title: NEXT DRIVE Task 4: High Torque Heavy Rare Earth Free Motors Principal Investigator: Vandana Rallabandi, Oak Ridge National Laboratory

Presentation Number:

ELT322

Presentation Title:

NEXT DRIVE Task 5: Digital Twin Diagnostics and Prognostics

Principal Investigator:

Praveen Kumar, Oak Ridge National Laboratory

Presenter

Praveen Kumar, Oak Ridge National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

75% of reviewers felt that the project was relevant to current DOE objectives, 25% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 75% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 25% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT322_Kumar_2025_o.pdf

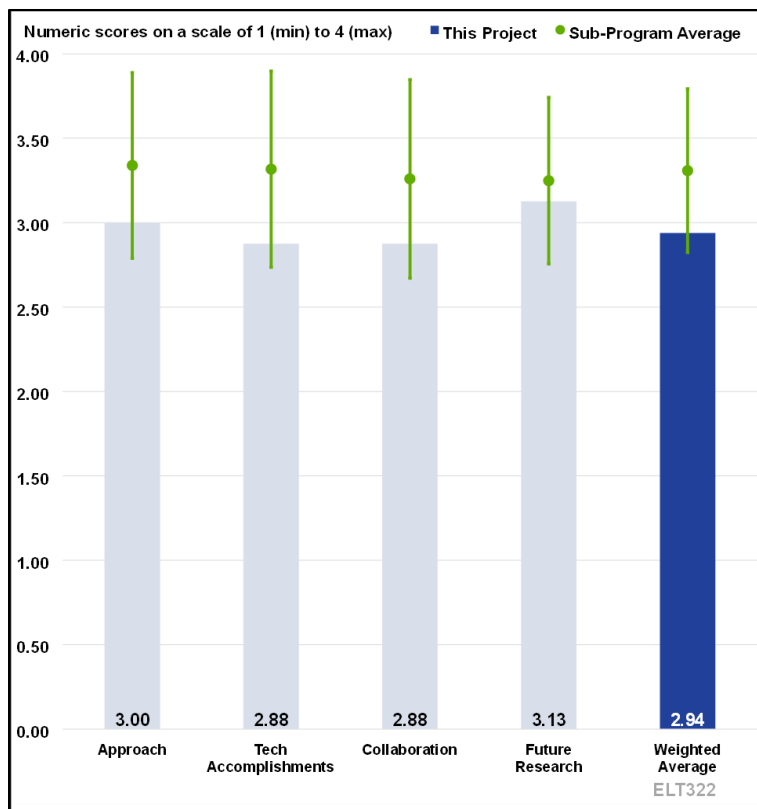


Figure 2-27 - Presentation Number: ELT322 Presentation Title: NEXT DRIVE Task 5: Digital Twin Diagnostics and Prognostics Principal Investigator: Praveen Kumar, Oak Ridge National Laboratory

Presentation Number:

ELT323

Presentation Title:

GaN-Enabled Dual Multilevel Inverter Integrated Electric Drive System

Principal Investigator:

Khorshed Alam, General Motors

Presenter

Khorshed Alam, General Motors

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT323_Alam_2025_o.pdf

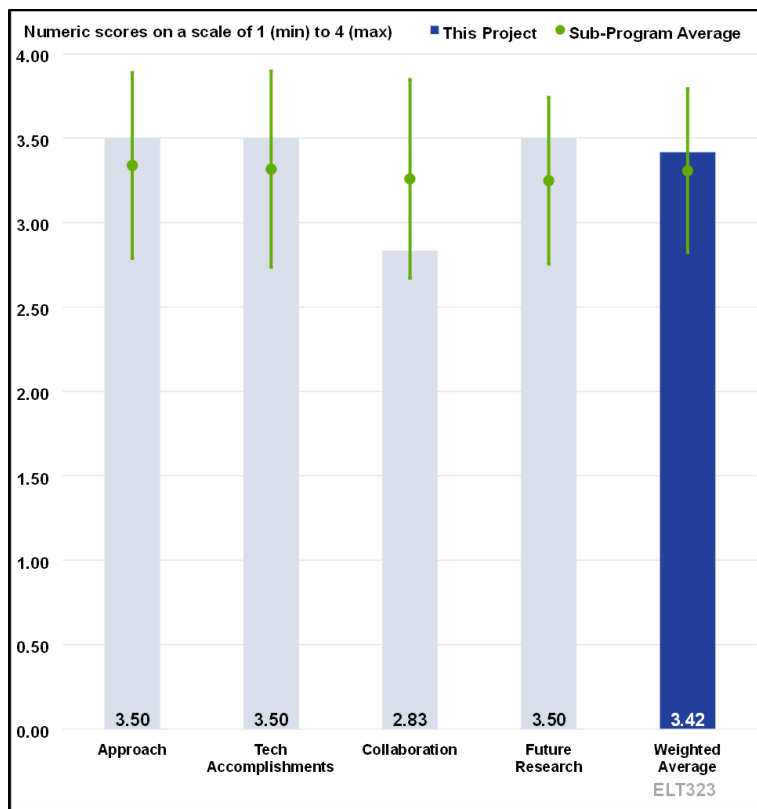


Figure 2-28 - Presentation Number: ELT323 Presentation Title: GaN-Enabled Dual Multilevel Inverter Integrated Electric Drive System Principal Investigator: Khorshed Alam, General Motors

Presentation Number:

ELT324

Presentation Title:

Integrated Three-Level GAN Inverter and PMSYNRM Motor for Electric Passenger Vehicles and Medium/Heavy Duty Trucks (GANIN_PMSYNRM)

Principal Investigator:

Kevin Bai, The University of Tennessee, Knoxville

Presenter

Kevin Bai, The University of Tennessee, Knoxville

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT324_Bai_2025_o.pdf

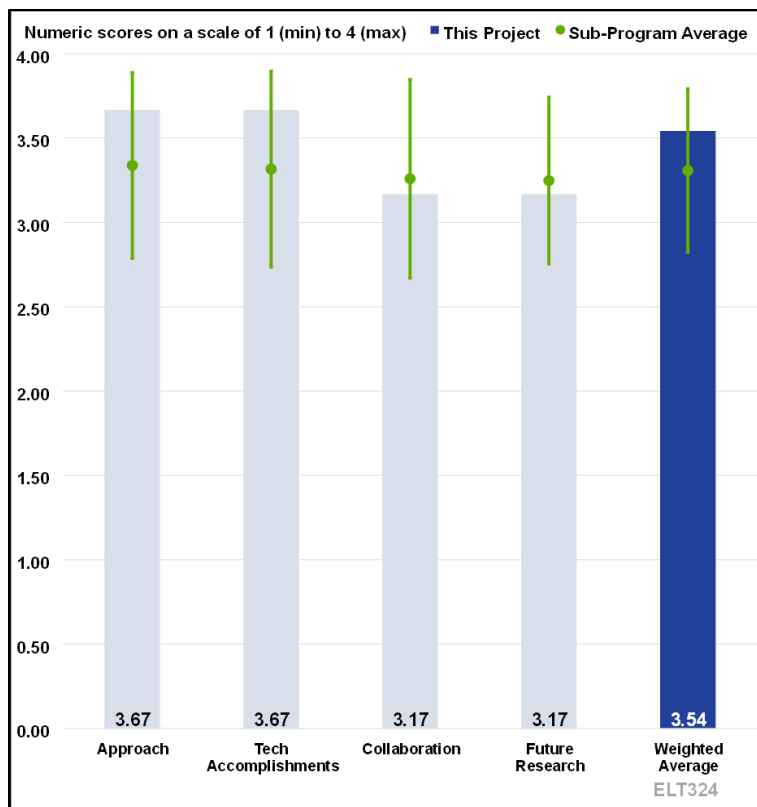


Figure 2-29 - Presentation Number: ELT324 Presentation Title: Integrated Three-Level GAN Inverter and PMSYNRM Motor for Electric Passenger Vehicles and Medium/Heavy Duty Trucks (GANIN_PMSYNRM) Principal Investigator: Kevin Bai, The University of Tennessee, Knoxville

Presentation Number:

ELT325

Presentation Title:

Stationary Polyphase Wireless Charging for Heavy-Duty Vehicles

Principal Investigator:

Minyu Cai, Cummins Inc.

Presenter

Minyu Cai, Cummins Inc.

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 75% of reviewers felt that the resources were sufficient, 25% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT325_Cai_2025_o.pdf

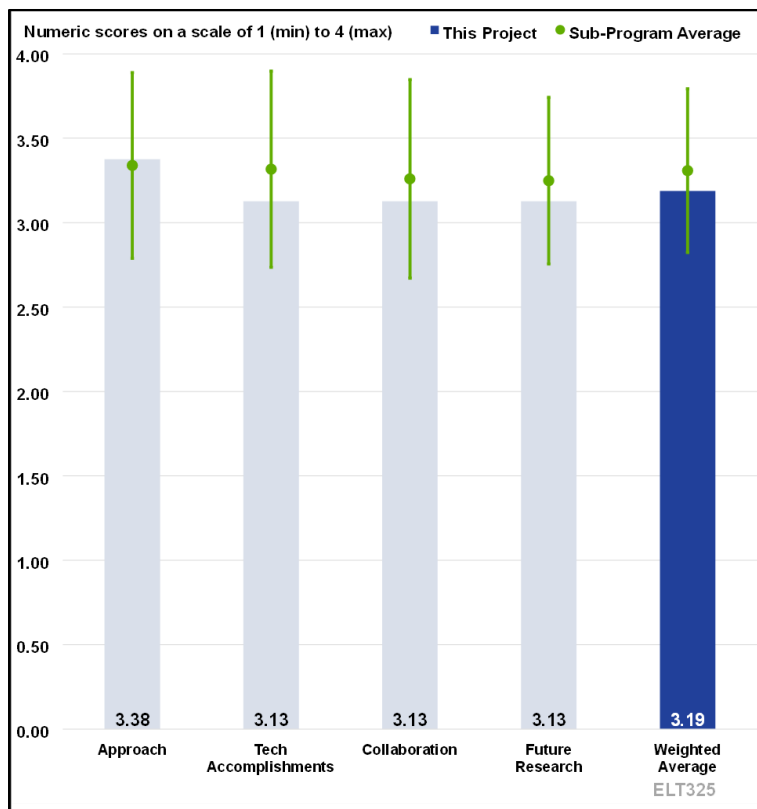


Figure 2-30 - Presentation Number: ELT325 Presentation Title: Stationary Polyphase Wireless Charging for Heavy-Duty Vehicles Principal Investigator: Minyu Cai, Cummins Inc.

Presentation Number:

ELT326

Presentation Title:

Freight Emissions Reduction from Medium-Duty, Battery Electric and Hydrogen Fuel Cell Trucks with Green Hydrogen Production via a New Electrolyzer Design and Electrical Utility Grid Coupling

Principal Investigator:

Jacob Lozier, General Motors

Presenter

Jacob Lozier, General Motors

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT326_Lozier_2025_o.pdf

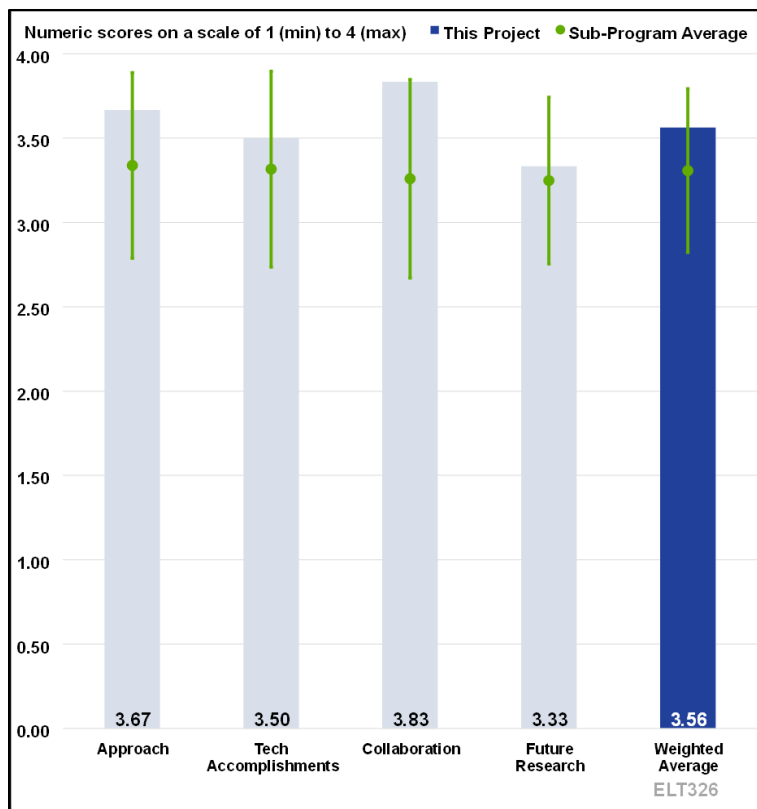


Figure 2-31 - Presentation Number: ELT326 Presentation Title: Freight Emissions Reduction from Medium-Duty, Battery Electric and Hydrogen Fuel Cell Trucks with Green Hydrogen Production via a New Electrolyzer Design and Electrical Utility Grid Coupling Principal Investigator: Jacob Lozier, General Motors

Presentation Number:

ELT327

Presentation Title:

High Efficiency Fuel Cell Application for Medium Duty Truck Vocations

Principal Investigator:

Stan Bower, Ford Motor Company

Presenter

Stan Bower, Ford Motor Company

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

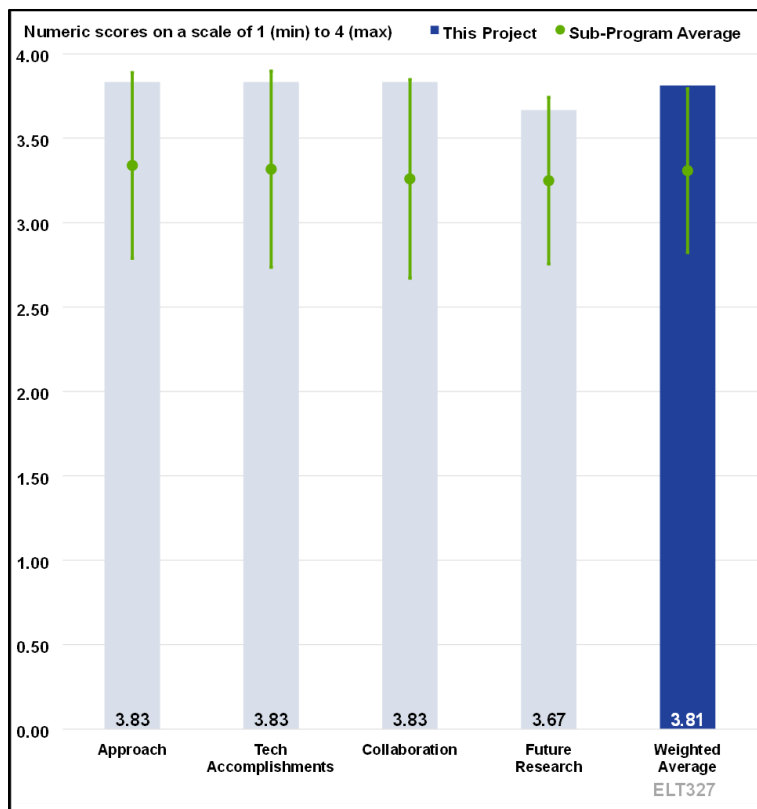


Figure 2-32 - Presentation Number: ELT327 Presentation Title: High Efficiency Fuel Cell Application for Medium Duty Truck Vocations Principal Investigator: Stan Bower, Ford Motor Company

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT327_Bower_2025_o.pdf

Presentation Number:

ELT328

Presentation Title:

Ultra-Efficient Long-Haul Hydrogen Fuel Cell Tractor

Principal Investigator:

Darek Villeneuve, Daimler Truck North America

Presenter

Darek Villeneuve, Daimler Truck North America

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ELT328_Villeneuve_2025_o.pdf

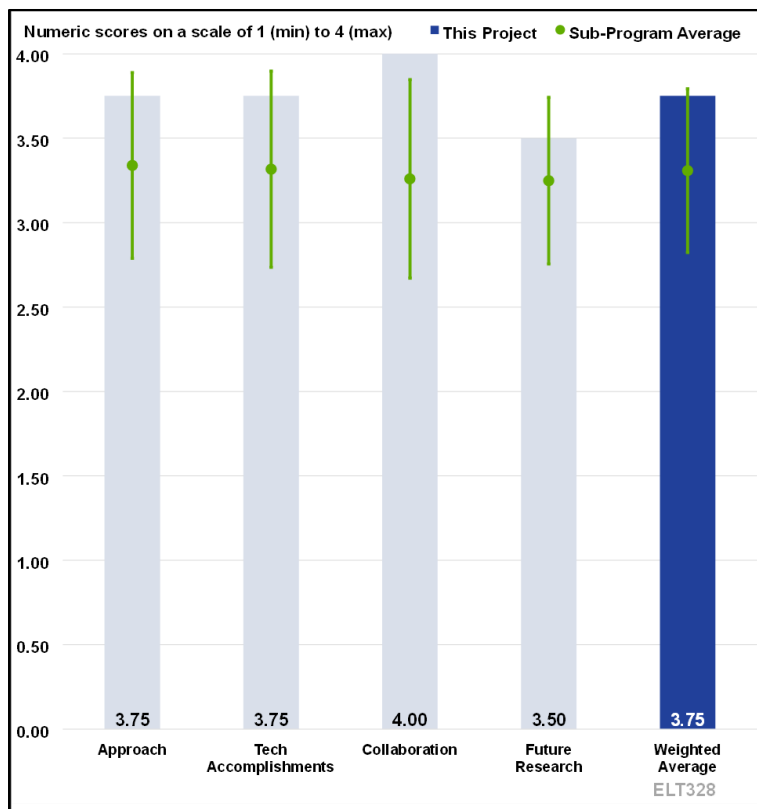


Figure 2-33 - Presentation Number: ELT328 Presentation Title: Ultra-Efficient Long-Haul Hydrogen Fuel Cell Tractor Principal Investigator: Darek Villeneuve, Daimler Truck North America

3. Off-Road, Rail, Marine, and Aviation Technologies

The Vehicle Technologies Office (VTO) funds research and development (R&D) of engines, batteries, power electronics, motors, materials, and transportation systems. VTO leverages the unique capabilities and world-class expertise of the national laboratory system to innovate new vehicle technologies. VTO is uniquely positioned to accelerate innovative transportation technologies due to strategic public-private research partnerships with industry (e.g., the U.S. DRIVE Partnership, the 21st Century Truck Partnership) that leverage relevant expertise. These partnerships prevent duplication of effort, focus U.S. Department of Energy (DOE) research on critical R&D barriers, and accelerate progress.

The Off-Road, Rail, Marine, and Aviation (ORMA) Technologies subprogram supports research, development, demonstration, and deployment (RDD&D) to develop and deploy new propulsion and efficient vehicle technologies in off-road, rail, marine, and aviation applications that increase fuel efficiency and reduce air pollution emissions.

The goal of this portfolio is to conduct coordinated research with industry, universities, and the national laboratories through competitive cooperative agreements and Cooperative Research and Development Agreements (CRADAs) and other laboratory directed funding to advance non-road transportation technologies that offer economic benefit to the United States. The subprogram conducts industry-focused RDD&D on engine, hybrid, and electrified systems as well as powertrains that can utilize renewable fuels, such as advanced biofuels, hydrogen, renewable diesel, and e-fuels. The subprogram coordinates with and utilizes expertise from other Offices and VTO programs as needed.

The subprogram supports cutting-edge research at the national laboratories, in close collaboration with industry, while working closely with other agencies including the Environmental Protection Agency and Department of Transportation's Federal Railroad Administration, Maritime Administration, Federal Aviation Administration, and the National Aeronautics and Space Administration to achieve goals for energy innovation in these sectors. The subprogram uses a multi-laboratory initiative, including high performance computing and hardware in-the-loop resources, for research to optimize vehicle efficiency which also can be applicable to on-road heavy-duty vehicles.

The subprogram also supports industry needs to develop predictive, high-fidelity modeling and simulation tools that are scalable and can leverage future exascale computing capabilities. The activity will fund research of alternative and renewable fuel properties utilizing chemical kinetics modeling of different molecules to determine their impact on combustion efficiency and emissions. It will also develop numerical routines and models of complex chemical reactions that can reduce the computational time and

increase the accuracy required for high-fidelity engine models, making them viable for use by industry.

Project Feedback

In this merit review activity, each reviewer was asked to respond to a series of questions, involving multiple-choice responses, expository responses where text comments were requested, and numeric score responses (on a scale of 1.0 to 4.0). In the pages that follow, the multiple choice and numeric score questions will be presented in graph form for each project. A table presenting the average numeric score for each question for each project is presented below.

Table 3-1 – Project Feedback

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
ORMA001	Overcoming Key Barriers to H ₂ ICEs – Mixing, Pre-Ignition, and Ultra-Lean Operation	Ales Srna (Sandia National Laboratories)	3-9	3.38	3.50	3.50	3.38	3.45
ORMA002	Alcohol Combustion in CI Engines – Understanding Mixing, Ignition and Pollutant Emissions	Dario Lopez-Pintor (Sandia National Laboratories)	3-10	3.40	3.20	3.60	3.20	3.30
ORMA003	Soot Predictions from DNS of a Lab-Scale Combustor with Sustainable Aviation Fuels	Bruno Soriano (Sandia National Laboratories)	3-11	3.38	3.38	3.38	3.31	3.37
ORMA004	Mixing-Controlled Compression-Ignition Combustion with Low-Lifecycle-CO ₂ Fuels	Chuck Mueller (Sandia National Laboratories)	3-12	3.50	3.60	3.70	3.30	3.55
ORMA005	Alcohol Spray and H ₂ Jet Experiments and Modeling	Lyle Pickett (Sandia National Laboratories)	3-13	3.50	3.25	3.25	3.13	3.30

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
ORMA006	Low Lifecycle Carbon Fuel (LLCF) Combustion and Emission Models	Scott Wagnon (Lawrence Livermore National Laboratory)	3-14	3.80	3.50	3.60	3.90	3.64
ORMA012	Enabling Hydrogen Combustion for Large-Bore Locomotive Engines through Advanced CFD Modeling	Muhsin Ameen (Argonne National Laboratory)	3-15	3.20	3.20	3.60	3.10	3.24
ORMA014	Implementing Low Lifecycle Carbon Fuels on Locomotive Engines – CRADA with Wabtec	Dean Edwards (Oak Ridge National Laboratory)	3-16	3.20	2.80	3.40	2.80	2.98
ORMA015	Predictive CFD Tools for Off-Road IC Engines Utilizing Alternative Fuels	Riccardo Scarcelli (Argonne National Laboratory)	3-17	3.38	3.63	3.38	3.25	3.48
ORMA016	Methanol-Fueled Engines for Marine and Off-Road Applications	Derek Splitter (Oak Ridge National Laboratory)	3-18	3.67	3.58	3.58	3.58	3.60
ORMA018	SAF Combustion and Contrail Formation Research	Julien Manin (Sandia National Laboratories)	3-19	3.38	3.38	3.50	3.25	3.38
ORMA019	Multi-Phase Flow Studies of SAFs for Industry-Relevant Conditions and Geometries	Brandon Sforzo (Argonne National Laboratory)	3-20	3.63	3.50	3.63	3.50	3.55

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
ORMA020	Aviation Emissions Modeling	Matt McNenly (Lawrence Livermore National Laboratory)	3-21	3.60	3.60	3.50	3.50	3.58
ORMA021 (ACE171)	Simultaneous Greenhouse Gas and Criteria Pollutants Emissions Reduction for Off-Road Powertrains	James McCarthy (Eaton)	3-22	3.30	3.30	3.00	3.10	3.24
ORMA026	Articulated Dump Truck (ADT) Electrification – Commercialization of New Technology in Construction Vehicles	Brij Singh (John Deere)	3-23	3.20	2.90	3.10	2.90	3.00
ORMA027 (ACE170)	Control of Aldehyde Emissions from Alcohol-Fueled, Non-Road Engines	Sreshtha Majumdar (Oak Ridge National Laboratory)	3-24	3.38	3.50	3.38	3.25	3.42
ORMA037	Sustainable Aviation Fuel Characterization	Gina Fioroni (National Renewable Energy Laboratory)	3-25	3.17	3.42	3.42	3.33	3.34
ORMA038	Towards Accurate Modeling of Fuel and Combustion Characteristics of SATF	Debolina Dasgupta (Argonne National Laboratory)	3-26	3.38	3.38	3.38	3.38	3.38
ORMA040	Optimized Low Carbon Fuel Range Extender (HyREX)	Jon Dickson (Cummins Inc.)	3-27	3.30	3.10	3.20	3.30	3.19

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
ORMA041	Reducing Low-Load Emissions and N ₂ O	Dhruba Deka (Pacific Northwest National Laboratory)	3-28	3.50	3.58	3.17	3.25	3.47
ORMA042	Unforeseen Challenges with Renewable Fuels	Kenneth Rappe (Pacific Northwest National Laboratory)	3-29	3.13	3.25	3.00	3.13	3.17
ORMA043	Low-Load Cycle Emission Control	Yong Wang (Pacific Northwest National Laboratory)	3-30	3.42	3.50	3.58	3.25	3.46
ORMA045	Biodiesel Poisoning of Close-Coupled SCR Catalysts for Off-Road Engines	Todd Toops (Oak Ridge National Laboratory)	3-31	3.75	3.58	3.67	3.25	3.59
ORMA046	Ammonia for 4-Stroke Marine Dual Fuel and Gas Engines (Retrofits and New)	Scott Curran (Oak Ridge National Laboratory)	3-32	3.75	3.75	3.63	3.63	3.72
ORMA048	Medium Duty Off-Road DME Engine Achieving High Efficiency and Ultra Low Emissions	André Boehman (University of Michigan)	3-33	3.10	3.20	3.30	2.90	3.15
ORMA050	A Low Greenhouse Gas Advanced Spark Ignition Engine that can Operate on Natural Gas and Natural Gas-Hydrogen Blends with Diesel	Jeff Naber (Michigan Technical University)	3-34	3.20	3.30	3.50	3.30	3.30

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
ORMA052	Simulation of Jet Engine Performance using SATF Blends	Shashank Yellapantula (National Renewable Energy Laboratory)	3-35	3.83	3.33	3.33	3.33	3.46
ORMA055	High Energy-Efficient Hybrid Excavator Powered by Hydrogen Combustion Engine	Andrea Vacca (Purdue University)	3-36	3.10	3.20	3.50	3.20	3.21
ORMA056	Transient-Capable Hydrogen-Hybrid for Off-Road (THOR)	Chad Koci (Caterpillar Inc.)	3-37	3.60	3.40	3.60	3.40	3.48
ORMA057	High Power, Ultra-Low Emissions HD H ₂ Engine	Nathan Peters (Dumarey USA)	3-38	3.33	3.17	3.50	3.33	3.27
ORMA058	Greatly Reduced Vehicle Platinum Group Metal (PGM) Content Using Engineered, Highly Dispersed Precious Metal Catalysts	Yong Wang (Washington State University)	3-39	3.50	3.20	3.20	3.00	3.25
ORMA059	Robust NH ₃ -SCR Catalysts to Enable H ₂ -ICEs	Yong Wang (Pacific Northwest National Laboratory)	3-40	3.30	3.40	2.90	3.00	3.26

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
ORMA060	Development and Demonstration of a Medium-Duty Off-Road DME Engine with a Combustion Recipe for Ultra-Low NO _x	Ben Lawler (Clemson University)	3-41	3.90	3.70	3.70	3.40	3.71
ORMA061	Performance and Emissions Characteristics of a Locomotive Engine Using Biofuels	Muni Biruduganti (Argonne National Laboratory)	3-42	3.00	3.00	3.10	2.90	3.00
ORMA062	Measurements of Fundamental Combustion Behavior: SATFs and Surrogates	Scott Goldsborough (Argonne National Laboratory)	3-43	3.50	3.63	3.38	3.25	3.52
ORMA064	Development of a High-Efficiency, Low-Emissions, Heavy-Duty Hydrogen Internal Combustion Engine	Jay Shah (Cummins Inc.)	3-44	3.25	3.00	3.38	3.25	3.14
ORMA066	High-Fidelity CFD Modeling of Aviation Emissions	Chao Xu (Argonne National Laboratory)	3-45	3.67	4.00	3.67	3.50	3.81
Overall Average				3.42	3.388	3.41	3.26	3.38

Presentation Number:

ORMA001

Presentation Title:

Overcoming Key Barriers to H₂ICEs – Mixing, Pre-Ignition, and Ultra-Lean Operation

Principal Investigator:

Ales Srna, Sandia National Laboratories

Presenter

Ales Srna, Sandia National Laboratories

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

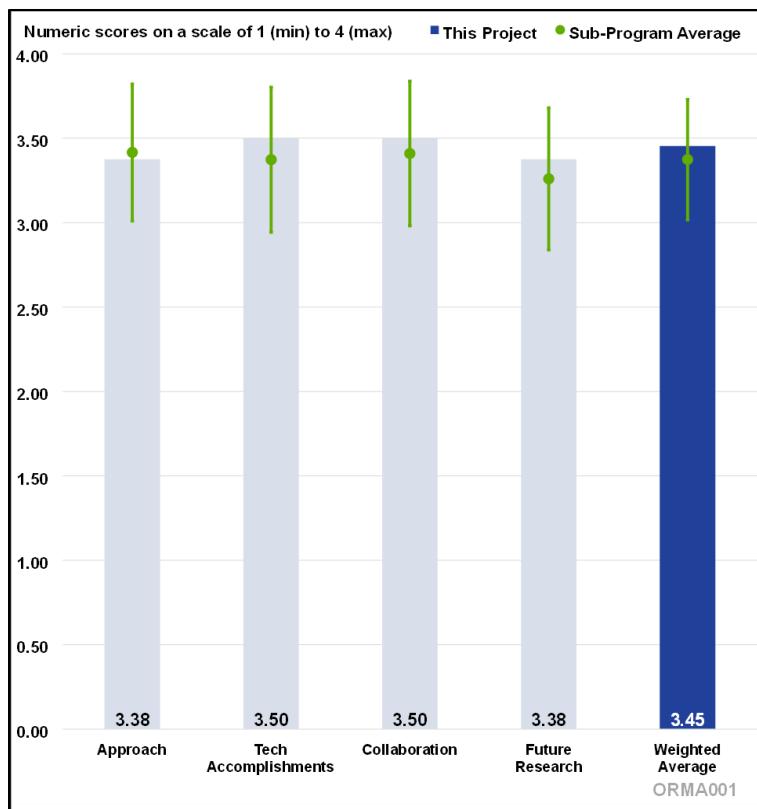


Figure 3-1 - Presentation Number: ORMA001 Presentation Title: Overcoming Key Barriers to H₂ICEs – Mixing, Pre-Ignition, and Ultra-Lean Operation Principal Investigator: Ales Srna, Sandia National Laboratories

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA001_Srna_2025.pdf

Presentation Number:

ORMA002

Presentation Title:

Alcohol Combustion in CI Engines – Understanding Mixing, Ignition and Pollutant Emissions

Principal Investigator:

Dario Lopez-Pintor, Sandia National Laboratories

Presenter

Dario Lopez-Pintor, Sandia National Laboratories

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

80% of reviewers felt that the project was relevant to current DOE objectives, 20% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA002_Lopez-Pintor_2025_o.pdf

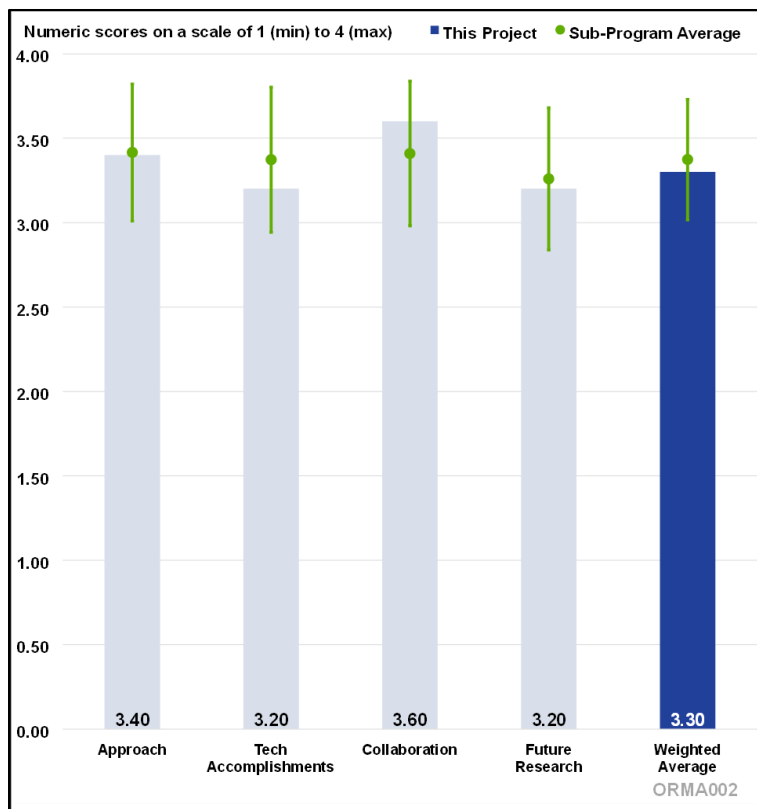


Figure 3-2 - Presentation Number: ORMA002 Presentation Title: Alcohol Combustion in CI Engines – Understanding Mixing, Ignition and Pollutant Emissions Principal Investigator: Dario Lopez-Pintor, Sandia National Laboratories

Presentation Number:

ORMA003

Presentation Title:

Soot Predictions from DNS of a Lab-scale Combustor with Sustainable Aviation Fuels

Principal Investigator:

Bruno Soriano, Sandia National Laboratories

Presenter

Bruno Soriano, Sandia National Laboratories

Reviewer Sample Size

A total of eight reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 75% of reviewers felt that the resources were sufficient, 25% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA003_Soriano_2025_o.pdf

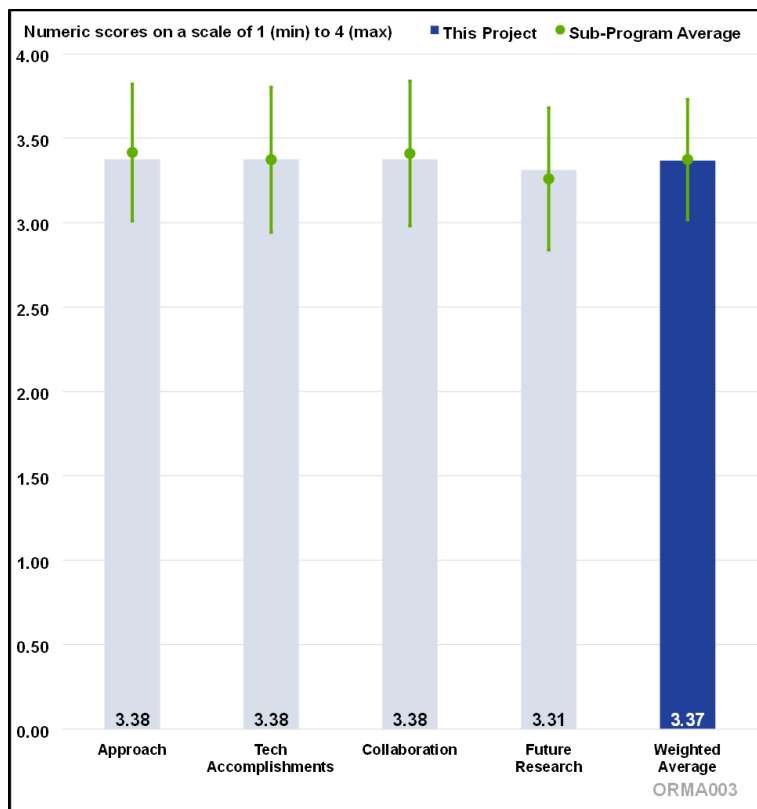


Figure 3-3 - Presentation Number: ORMA003 Presentation Title: Soot Predictions from DNS of a Lab-Scale Combustor with Sustainable Aviation Fuels Principal Investigator: Bruno Soriano, Sandia National Laboratories

Presentation Number:

ORMA004

Presentation Title:

Mixing-Controlled Compression-Ignition Combustion with Low-Lifecycle-CO₂ Fuels

Principal Investigator:

Chuck Mueller, Sandia National Laboratories

Presenter

Chuck Mueller, Sandia National Laboratories

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 60% of reviewers felt that the resources were sufficient, 20% of reviewers felt that the resources were insufficient, 20% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA004_Mueller_2025_o.pdf

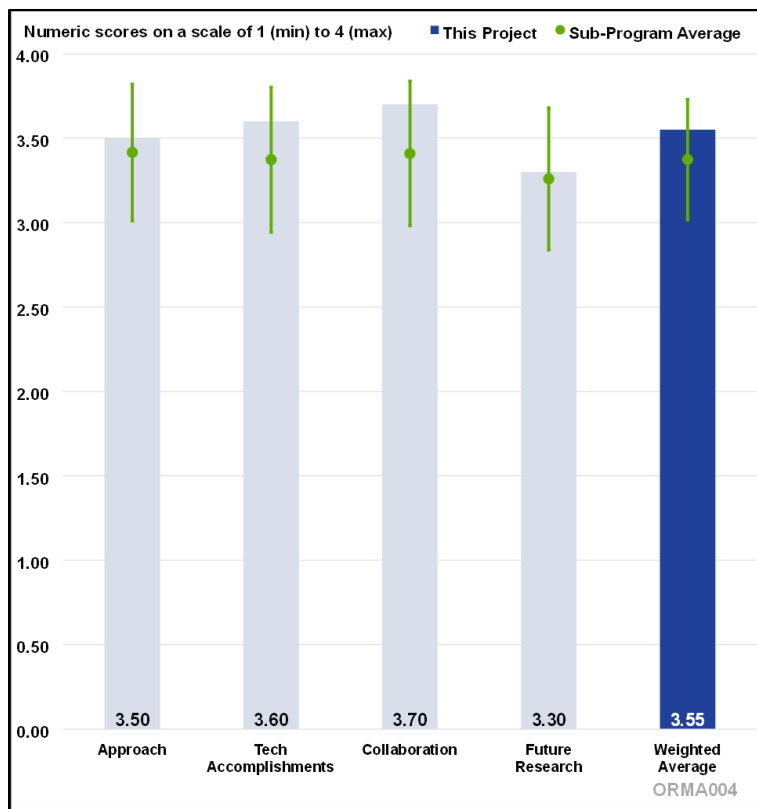


Figure 3-4 - Presentation Number: ORMA004 Presentation Title: Mixing-Controlled Compression-Ignition Combustion with Low-Lifecycle-CO₂ Fuels Principal Investigator: Chuck Mueller, Sandia National Laboratories

Presentation Number:

ORMA005

Presentation Title:

Alcohol Spray and H₂ Jet Experiments and Modeling

Principal Investigator:

Lyle Pickett, Sandia National Laboratories

Presenter

Lyle Pickett, Sandia National Laboratories

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 75% of reviewers felt that the resources were sufficient, 25% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA005_Pickett_2025_o.pdf

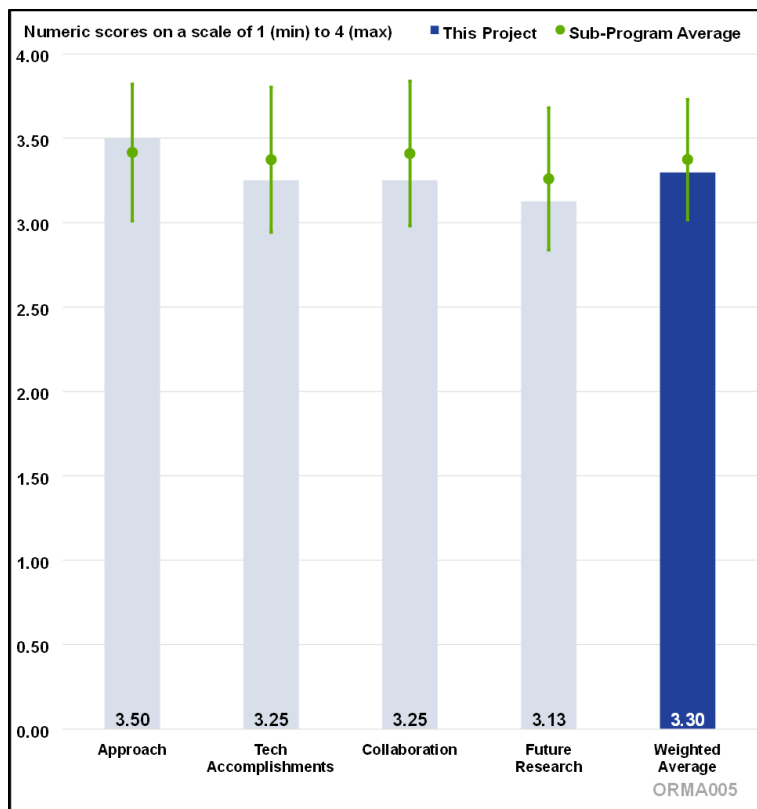


Figure 3-5 - Presentation Number: ORMA005 Presentation Title: Alcohol Spray and H₂ Jet Experiments and Modeling Principal Investigator: Lyle Pickett, Sandia National Laboratories

Presentation Number:

ORMA006

Presentation Title:

Low Lifecycle Carbon Fuel (LLCF)
Combustion and Emission Models

Principal Investigator:

Scott Wagon, Lawrence Livermore
National Laboratory

Presenter

Scott Wagon, Lawrence Livermore
National Laboratory

Reviewer Sample Size

A total of five reviewers evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the
project was relevant to current DOE
objectives, 0% of reviewers felt that
the project was not relevant, and
0% of reviewers did not indicate an
answer. 80% of reviewers felt that
the resources were sufficient, 20%
of reviewers felt that the resources
were insufficient, 0% of reviewers
felt that the resources were
excessive, and 0% of reviewers did
not indicate an answer.

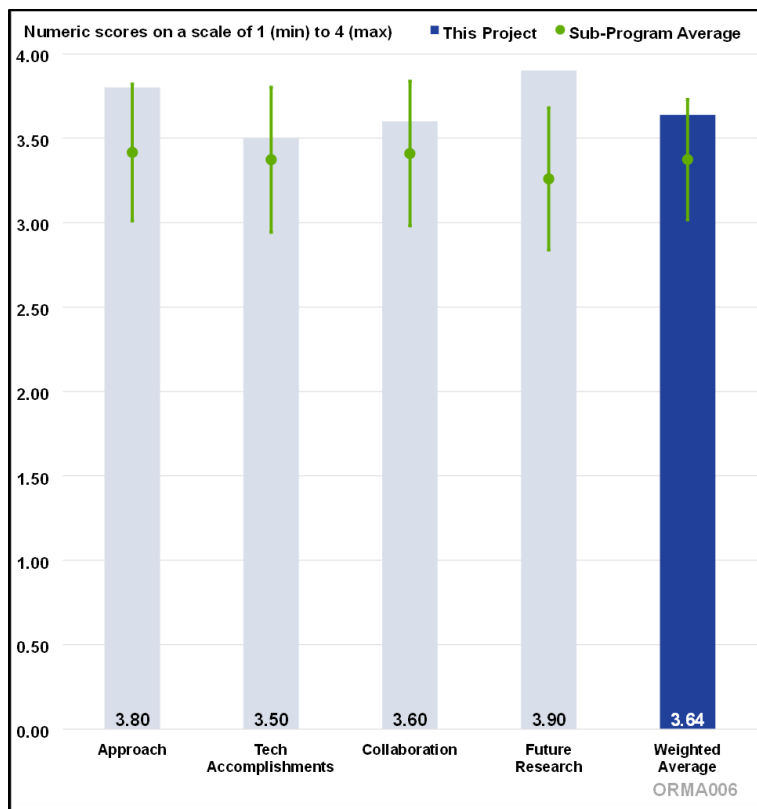


Figure 3-6 - Presentation Number: ORMA006 Presentation Title: Low Lifecycle Carbon Fuel (LLCF) Combustion and Emission Models Principal Investigator: Scott Wagon, Lawrence Livermore National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA006_Wagon_2025_o.pdf

Presentation Number:

ORMA012

Presentation Title:

Enabling Hydrogen Combustion for Large-Bore Locomotive Engines through Advanced CFD Modeling

Principal Investigator:

Muhsin Ameen, Argonne National Laboratory

Presenter

Muhsin Ameen, Argonne National Laboratory

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 80% of reviewers felt that the resources were sufficient, 20% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA012_Ameen_2025_o.pdf

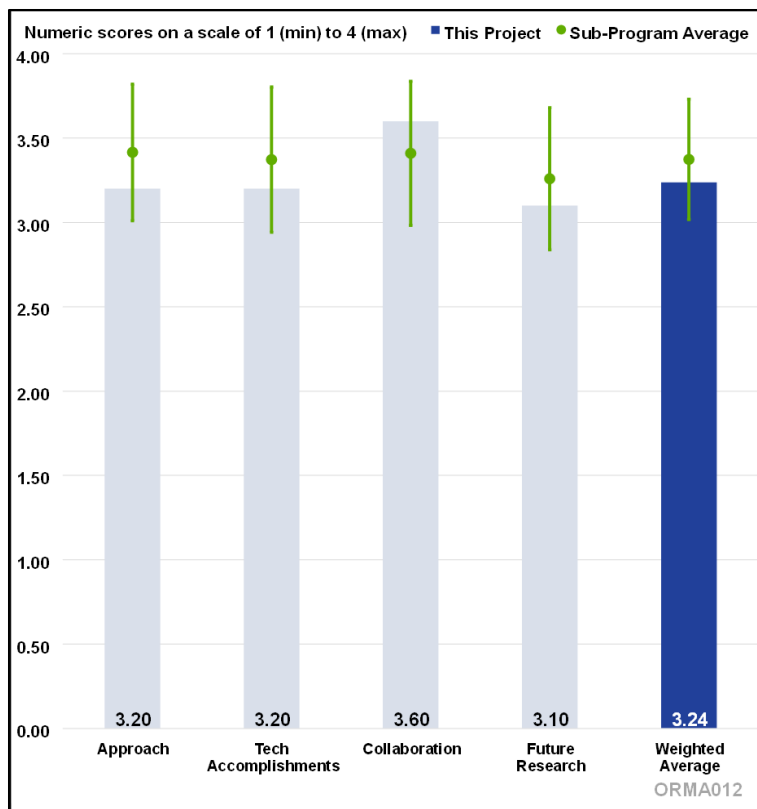


Figure 3-7 - Presentation Number: ORMA012 Presentation
Title: Enabling Hydrogen Combustion for Large-Bore Locomotive Engines through Advanced CFD Modeling
Principal Investigator: Muhsin Ameen, Argonne National Laboratory

Presentation Number:

ORMA014

Presentation Title:

Implementing Low Lifecycle Carbon Fuels on Locomotive Engines – CRADA with Wabtec

Principal Investigator:

Dean Edwards, Oak Ridge National Laboratory

Presenter

Dean Edwards, Oak Ridge National Laboratory

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA014_Edwards_2025_o.pdf

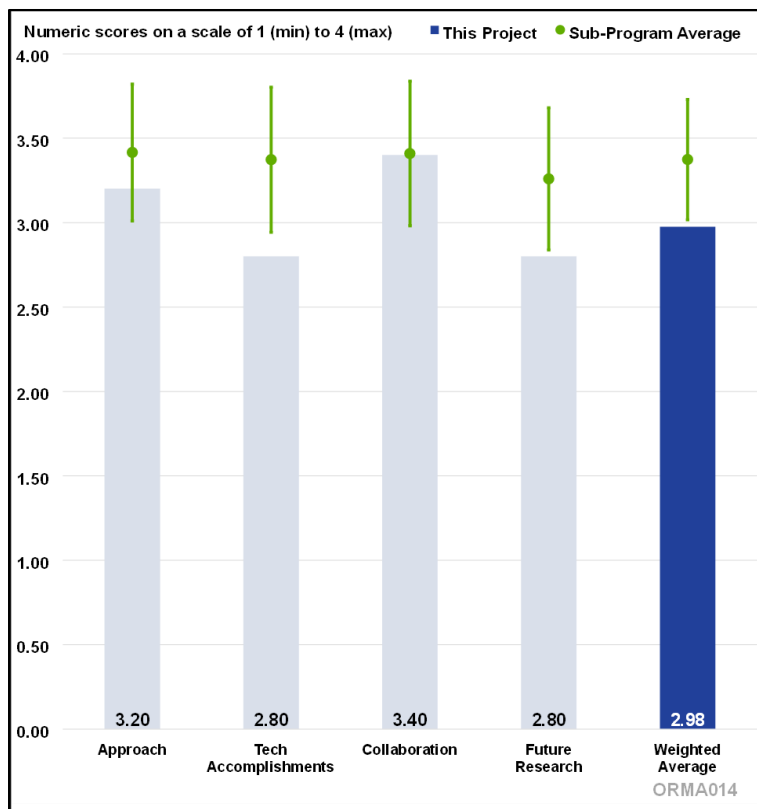


Figure 3-8 - Presentation Number: ORMA014 Presentation Title: Implementing Low Lifecycle Carbon Fuels on Locomotive Engines – CRADA with Wabtec Principal Investigator: Dean Edwards, Oak Ridge National Laboratory

Presentation Number:

ORMA015

Presentation Title:

Predictive CFD Tools for Off-Road IC Engines Utilizing Alternative Fuels

Principal Investigator:

Riccardo Scarcelli, Argonne National Laboratory

Presenter

Riccardo Scarcelli, Argonne National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA015_Scarcelli_2025_o.pdf

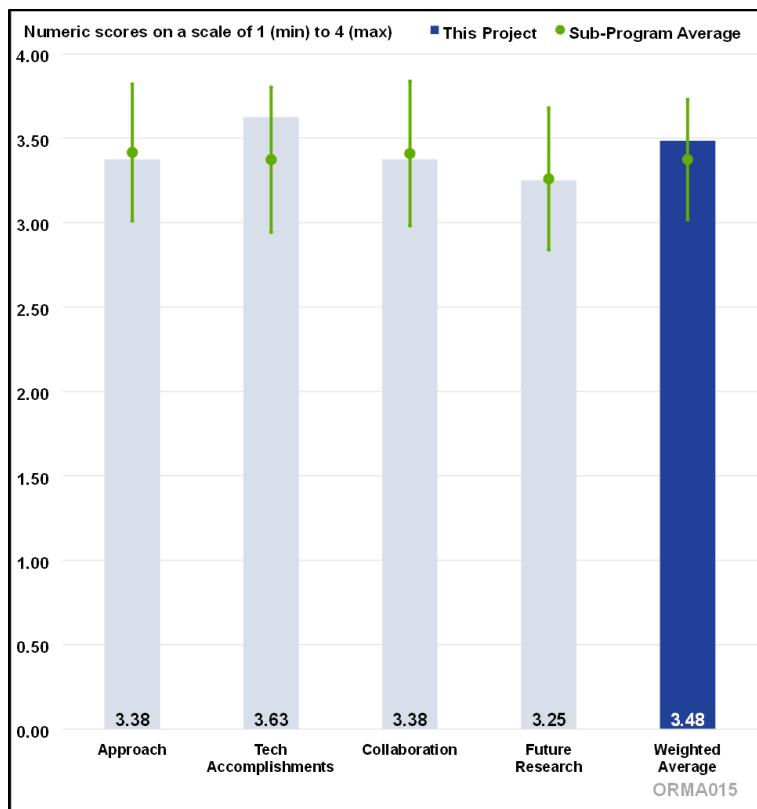


Figure 3-9 - Presentation Number: ORMA015 Presentation Title: Predictive CFD Tools for Off-Road IC Engines Utilizing Alternative Fuels Principal Investigator: Riccardo Scarcelli, Argonne National Laboratory

Presentation Number:

ORMA016

Presentation Title:

Methanol-Fueled Engines for Marine and Off-Road Applications

Principal Investigator:

Derek Splitter, Oak Ridge National Laboratory

Presenter

Derek Splitter, Oak Ridge National Laboratory

Reviewer Sample Size

A total of six reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA016_Splitter_2025_o.pdf

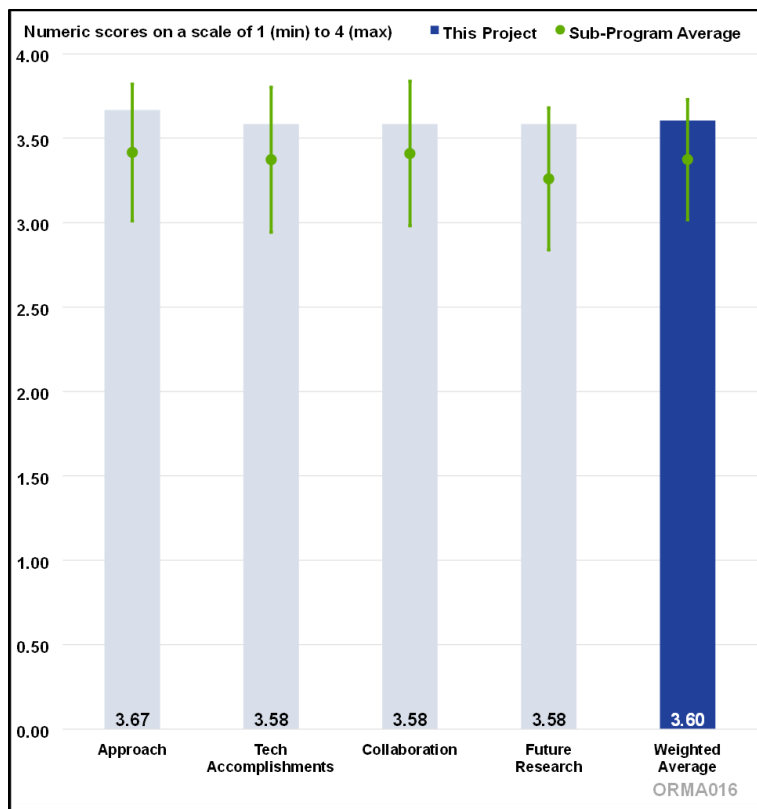


Figure 3-10 - Presentation Number: ORMA016 Presentation Title: Methanol-Fueled Engines for Marine and Off-Road Applications Principal Investigator: Derek Splitter, Oak Ridge National Laboratory

Presentation Number:

ORMA018

Presentation Title:

SAF Combustion and Contrail Formation Research

Principal Investigator:

Julien Manin, Sandia National Laboratories

Presenter

Julien Manin, Sandia National Laboratories

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 75% of reviewers felt that the resources were sufficient, 25% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA018_Manin_2025_o.pdf

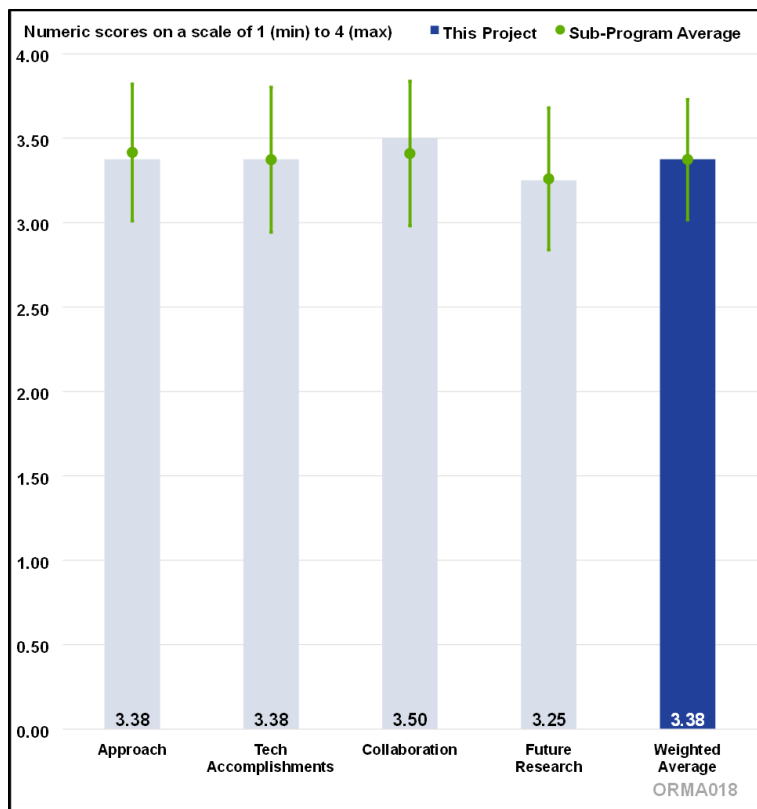


Figure 3-11 - Presentation Number: ORMA018 Presentation
Title: SAF Combustion and Contrail Formation Research
Principal Investigator: Julien Manin, Sandia National Laboratories

Presentation Number:

ORMA019

Presentation Title:

Multi-Phase Flow Studies of SAFs for Industry-Relevant Conditions and Geometries

Principal Investigator:

Brandon Sforzo, Argonne National Laboratory

Presenter

Brandon Sforzo, Argonne National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

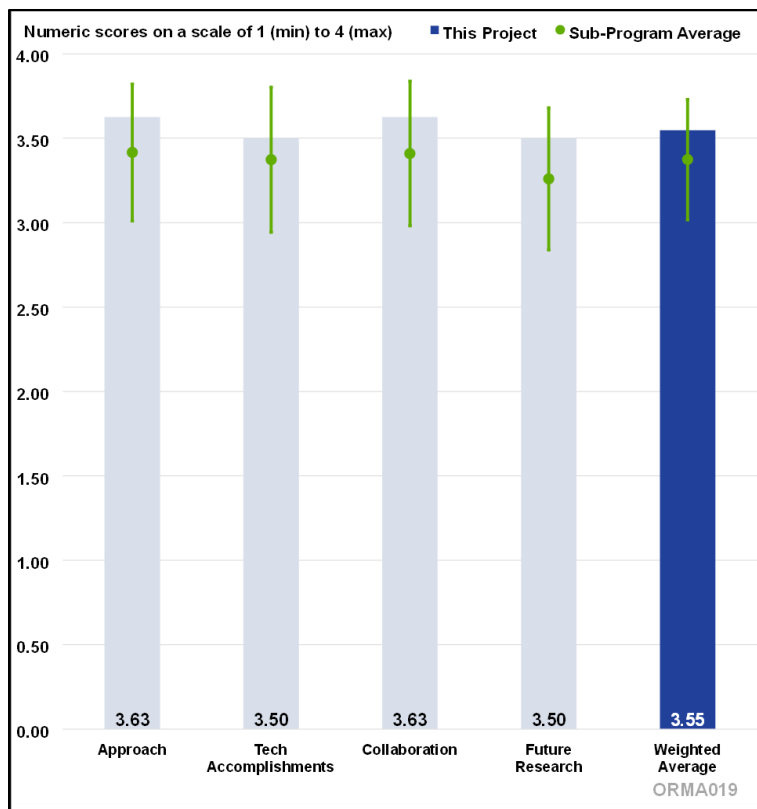


Figure 3-12 - Presentation Number: ORMA019 Presentation Title: Multi-Phase Flow Studies of SAFs for Industry-Relevant Conditions and Geometries Principal Investigator: Brandon Sforzo, Argonne National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA019_Sforzo_2025_o.pdf

Presentation Number:

ORMA020

Presentation Title:

Aviation Emissions Modeling

Principal Investigator:

Matt McNenly, Lawrence Livermore National Laboratory

Presenter

Matt McNenly, Lawrence Livermore National Laboratory

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA020_McNenly_2025_o.pdf

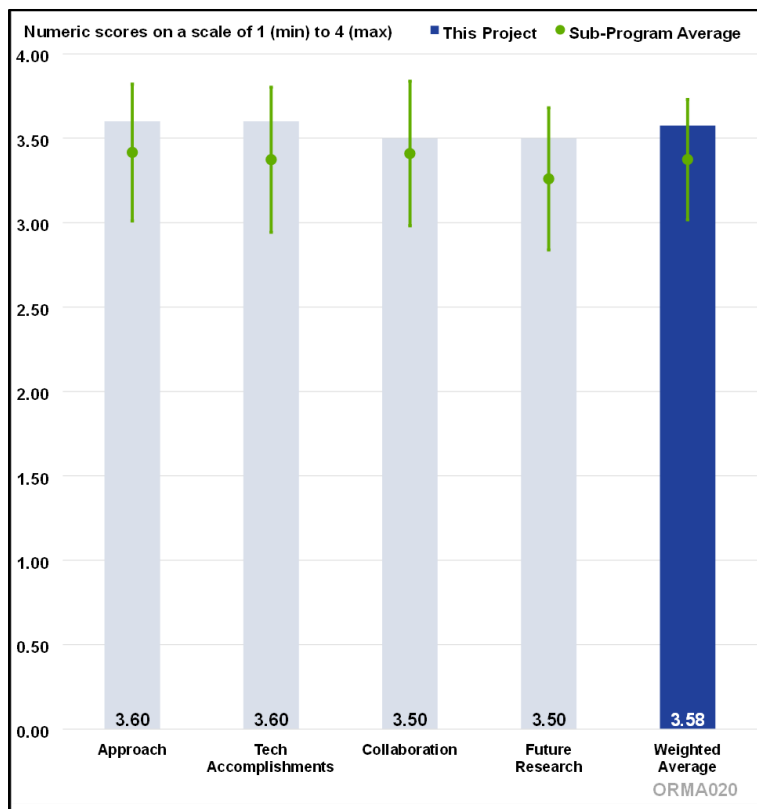


Figure 3-13 - Presentation Number: ORMA020 Presentation Title: Aviation Emissions Modeling Principal Investigator: Matt McNenly, Lawrence Livermore National Laboratory

Presentation Number:

ORMA021 (ACE171)

Presentation Title:

Simultaneous Greenhouse Gas and Criteria Pollutants Emissions

Reduction for Off-Road Powertrains

Principal Investigator:

James McCarthy, Eaton

Presenter

James McCarthy, Eaton

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 80% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 20% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

[https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA021\(ACE171\)_McCarthy_2025_o.pdf](https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA021(ACE171)_McCarthy_2025_o.pdf)

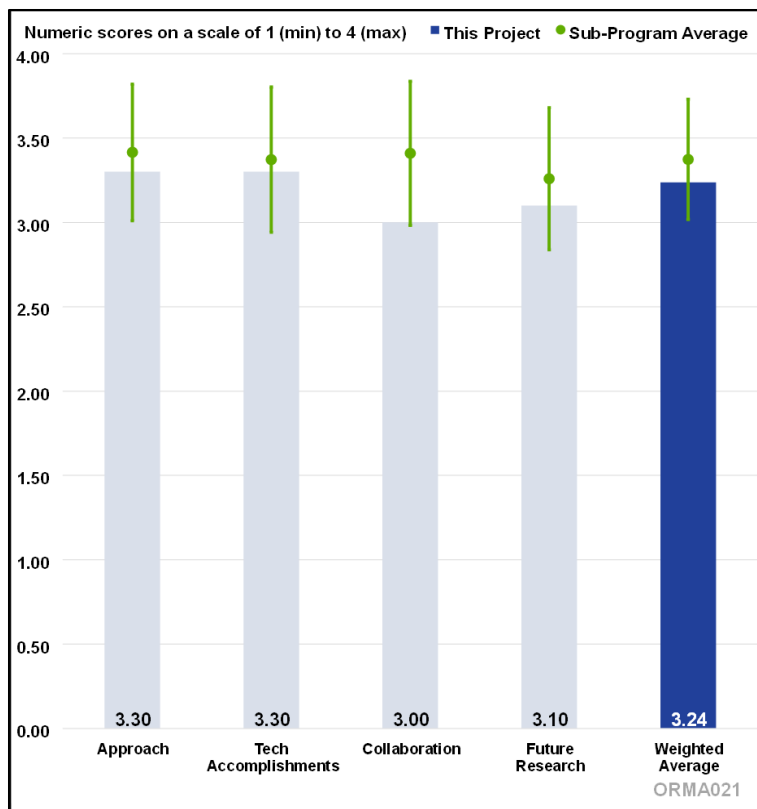


Figure 3-14 - Presentation Number: ORMA021 (ACE171)
Presentation Title: Simultaneous Greenhouse Gas and Criteria Pollutants Emissions Reduction for Off-Road Powertrains
Principal Investigator: James McCarthy, Eaton

Presentation Number:

ORMA026

Presentation Title:

Articulated Dump Truck (ADT)
Electrification – Commercialization
of New Technology in Construction
Vehicles

Principal Investigator:

Brij Singh, John Deere

Presenter

Brij Singh, John Deere

Reviewer Sample Size

A total of five reviewers evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the
project was relevant to current DOE
objectives, 0% of reviewers felt that
the project was not relevant, and
0% of reviewers did not indicate an
answer. 100% of reviewers felt that
the resources were sufficient, 0%
of reviewers felt that the resources
were insufficient, 0% of reviewers
felt that the resources were
excessive, and 0% of reviewers did
not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA026_Singh_2025_o.pdf

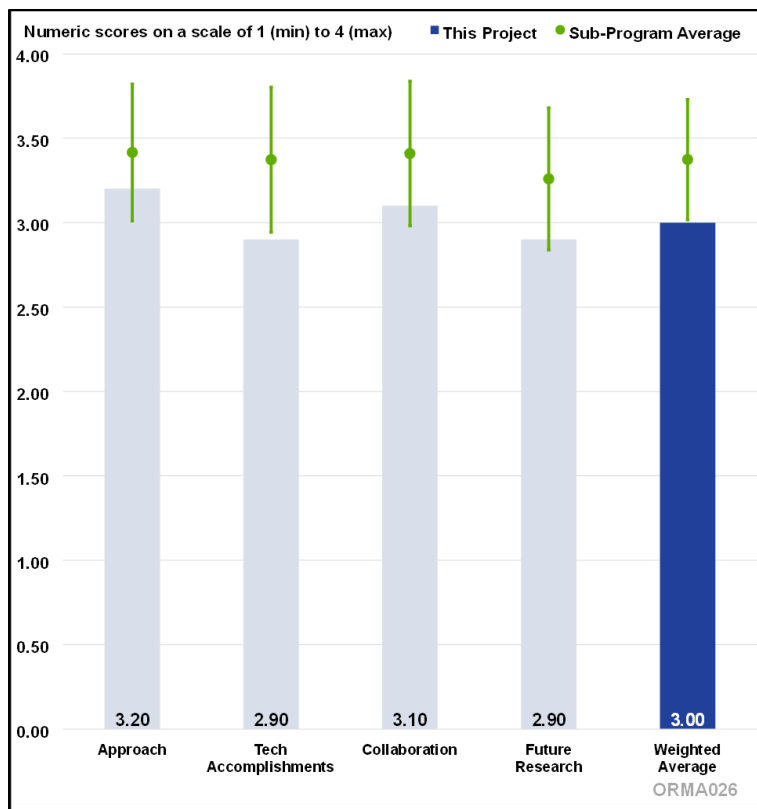


Figure 3-15 - Presentation Number: ORMA026 Presentation
Title: Articulated Dump Truck (ADT) Electrification –
Commercialization of New Technology in Construction
Vehicles Principal Investigator: Brij Singh, John Deere

Presentation Number:

ORMA027 (ACE170)

Presentation Title:

Control of Aldehyde Emissions from Alcohol-Fueled Non-Road Engines

Principal Investigator:

Sreshtha Majumdar, Oak Ridge National Laboratory

Presenter

Sreshtha Majumdar, Oak Ridge National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

[https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA027_\(ACE170\)_Majumdar_2025_o.pdf](https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA027_(ACE170)_Majumdar_2025_o.pdf)

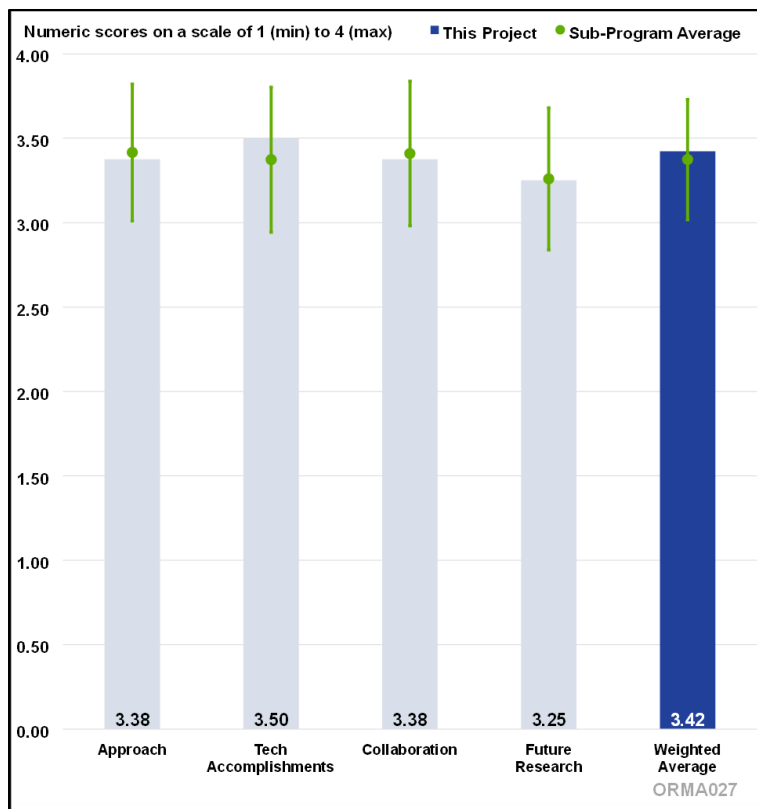


Figure 3-16 - Presentation Number: ORMA027 (ACE170)
Presentation Title: Control of Aldehyde Emissions from Alcohol-Fueled Non-Road Engines
Principal Investigator: Sreshtha Majumdar, Oak Ridge National Laboratory

Presentation Number:

ORMA037

Presentation Title:

Sustainable Aviation Fuel
Characterization

Principal Investigator:

Gina Fioroni, National Renewable
Energy Laboratory

Presenter

Robert McCormick, National
Renewable Energy Laboratory

Reviewer Sample Size

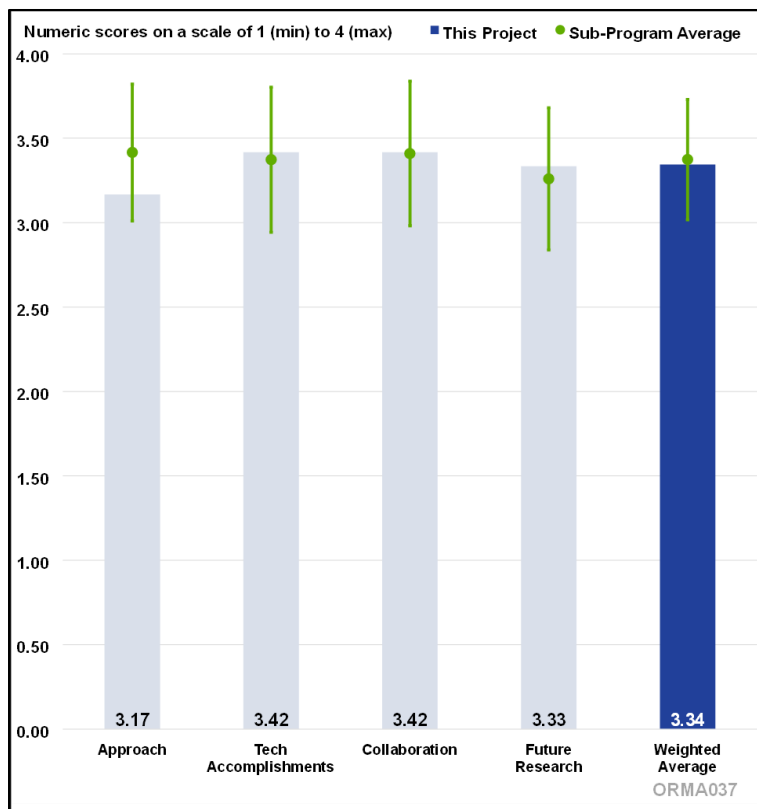
A total of six reviewers evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the
project was relevant to current DOE
objectives, 0% of reviewers felt that
the project was not relevant, and
0% of reviewers did not indicate an
answer. 67% of reviewers felt that
the resources were sufficient, 0%
of reviewers felt that the resources
were insufficient, 33% of reviewers
felt that the resources were
excessive, and 0% of reviewers did
not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA037_Fioroni_2025_o.pdf



**Figure 3-17 - Presentation Number: ORMA037 Presentation
Title: Sustainable Aviation Fuel Characterization Principal
Investigator: Gina Fioroni, National Renewable Energy
Laboratory**

Presentation Number:

ORMA038

Presentation Title:

Towards Accurate Modeling of Fuel and Combustion Characteristics of SATF

Principal Investigator:

Debolina Dasgupta, Argonne National Laboratory

Presenter

Debolina Dasgupta, Argonne National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

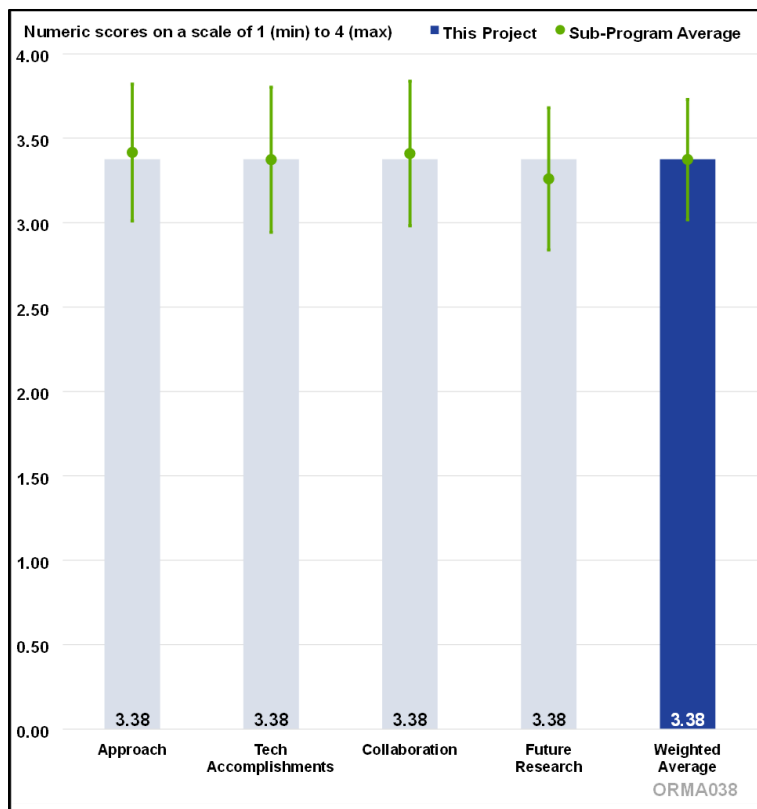


Figure 3-18 - Presentation Number: ORMA038 Presentation Title: Towards Accurate Modeling of Fuel and Combustion Characteristics of SATF Principal Investigator: Debolina Dasgupta, Argonne National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA038_Dasgupta_2025_o.pdf

Presentation Number:

ORMA040

Presentation Title:

Optimized Low Carbon Fuel Range Extender (HyREX)

Principal Investigator:

Jon Dickson, Cummins Inc.

Presenter

Jon Dickson, Cummins Inc.

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA040_Dickson_2025_o.pdf

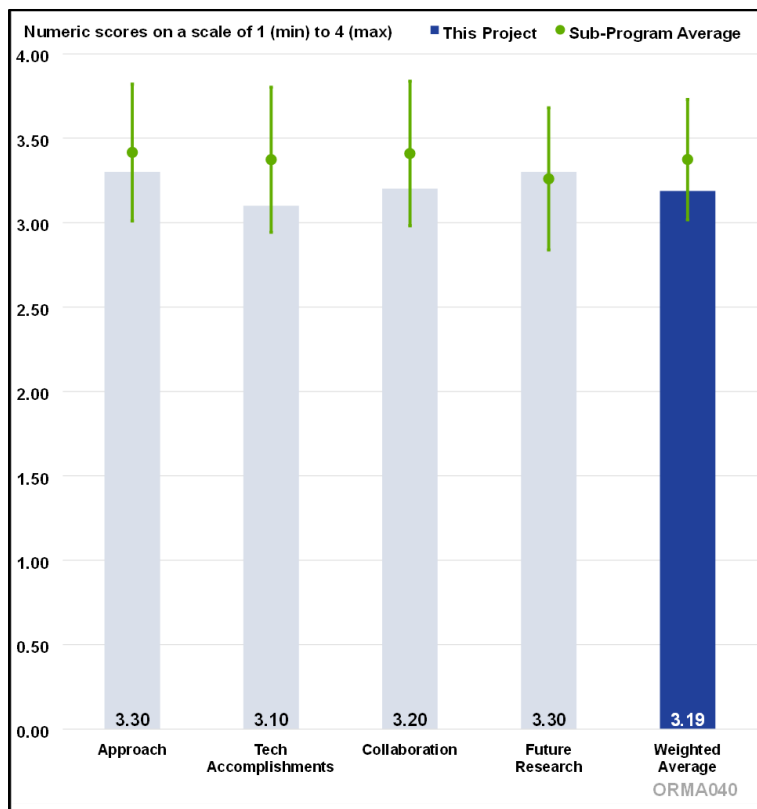


Figure 3-19 - Presentation Number: ORMA040 Presentation
Title: Optimized Low Carbon Fuel Range Extender (HyREX)
Principal Investigator: Jon Dickson, Cummins Inc.

Presentation Number:

ORMA041

Presentation Title:

Reducing Low-Load Emissions and N₂O

Principal Investigator:

Dhruba Deka, Pacific Northwest National Laboratory

Presenter

Dhruba Deka, Pacific Northwest National Laboratory

Reviewer Sample Size

A total of six reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA041_Deka_2025_o.pdf

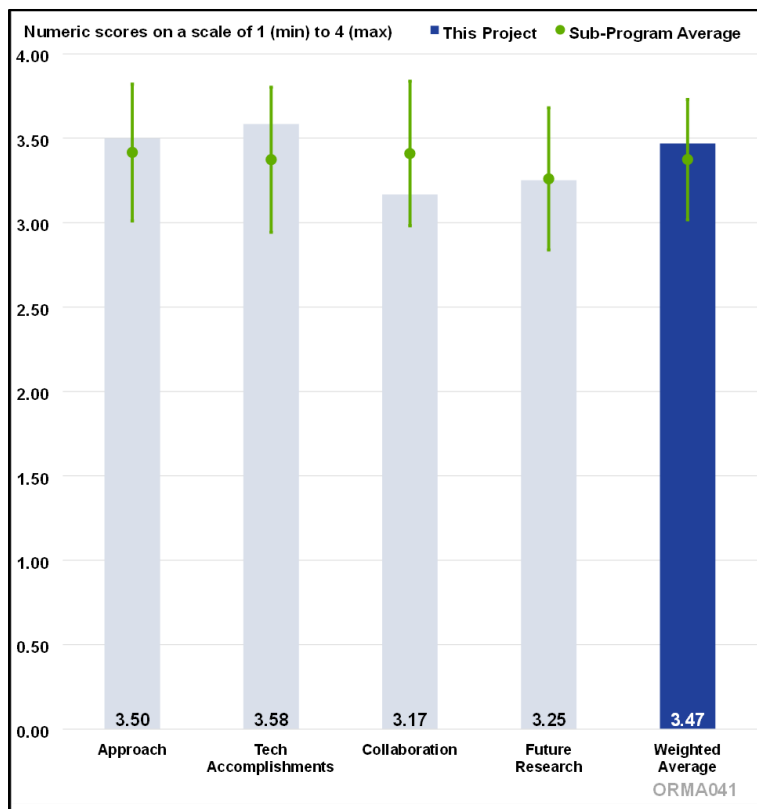


Figure 3-20 - Presentation Number: ORMA041 Presentation Title: Reducing Low-Load Emissions and N₂O Principal Investigator: Dhruba Deka, Pacific Northwest National Laboratory

Presentation Number:

ORMA042

Presentation Title:

Unforeseen Challenges with Renewable Fuels

Principal Investigator:

Kenneth Rappe, Pacific Northwest National Laboratory

Presenter

Kenneth Rappe, Pacific Northwest National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA042_Rappe_2025_o.p df

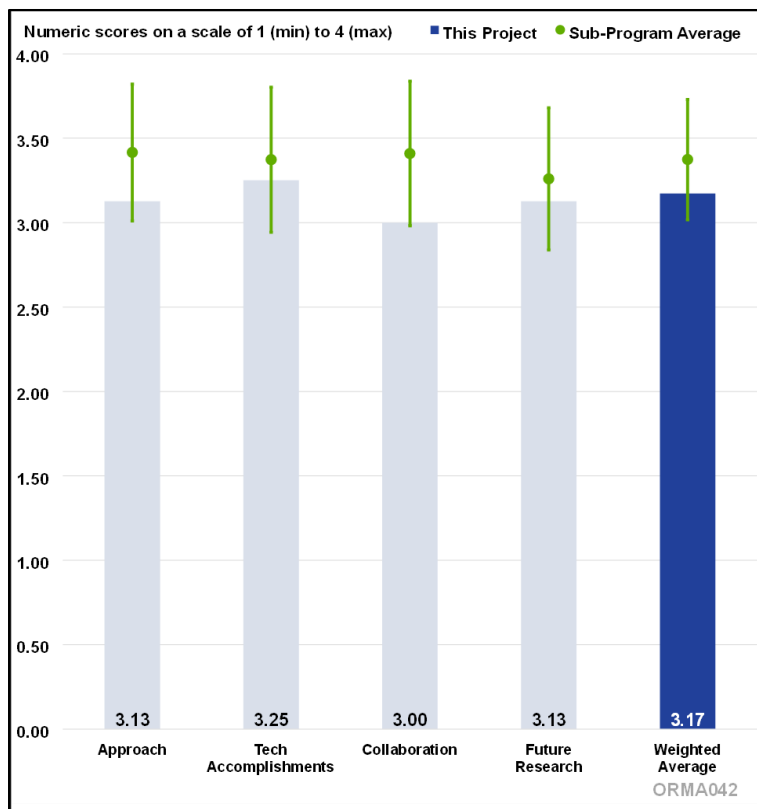


Figure 3-21 - Presentation Number: ORMA042 Presentation Title: Unforeseen Challenges with Renewable Fuels Principal Investigator: Kenneth Rappe, Pacific Northwest National Laboratory

Presentation Number:

ORMA043

Presentation Title:

Low-Load Cycle Emission Control

Principal Investigator:

Yong Wang, Pacific Northwest
National Laboratory

Presenter

Yong Wang, Pacific Northwest
National Laboratory

Reviewer Sample Size

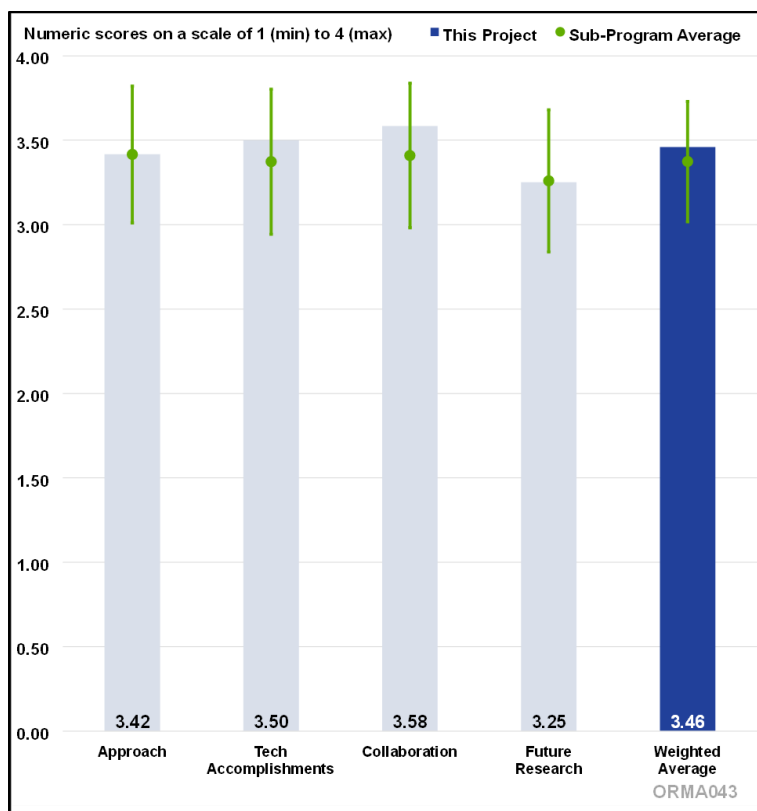
A total of six reviewers evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the
project was relevant to current DOE
objectives, 0% of reviewers felt that
the project was not relevant, and
0% of reviewers did not indicate an
answer. 100% of reviewers felt that
the resources were sufficient, 0% of
reviewers felt that the resources
were insufficient, 0% of reviewers
felt that the resources were
excessive, and 0% of reviewers did
not indicate an answer.

Presentation Link:

[https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA043_Wang_2025_o.p
df](https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA043_Wang_2025_o.p df)



**Figure 3-22 - Presentation Number: ORMA043 Presentation
Title: Low-Load Cycle Emission Control Principal Investigator:
Yong Wang, Pacific Northwest National Laboratory**

Presentation Number:

ORMA045

Presentation Title:

Biodiesel Poisoning of Close-Coupled SCR Catalysts for Off-Road Engines

Principal Investigator:

Todd Toops, Oak Ridge National Laboratory

Presenter

Todd Toops, Oak Ridge National Laboratory

Reviewer Sample Size

A total of six reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA045_Toops_2025_o.pdf

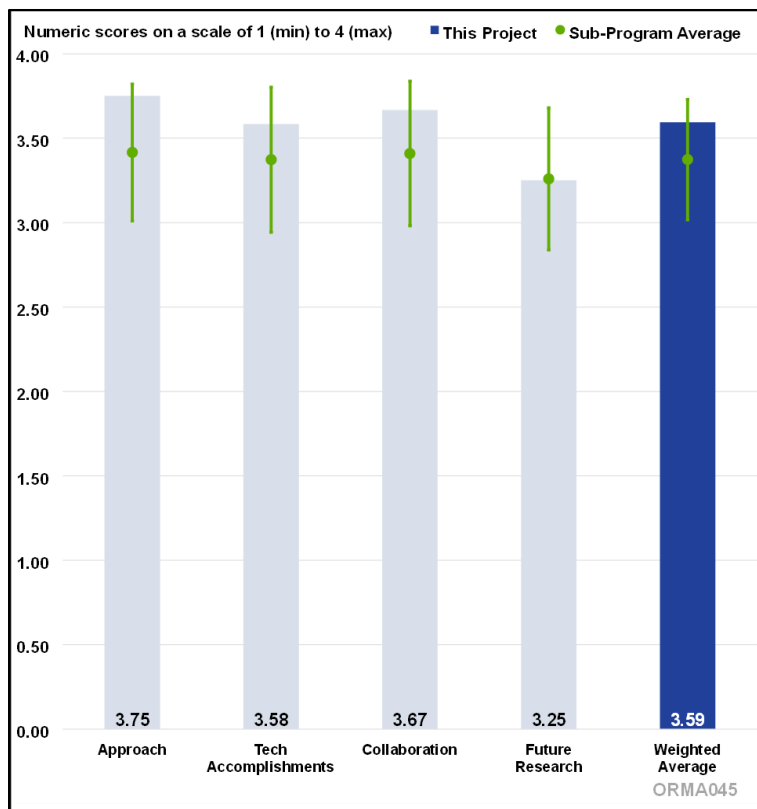


Figure 3-23 - Presentation Number: ORMA045 Presentation Title: Biodiesel Poisoning of Close-Coupled SCR Catalysts for Off-Road Engines Principal Investigator: Todd Toops, Oak Ridge National Laboratory

Presentation Number:

ORMA046

Presentation Title:

Ammonia for 4-Stroke Marine Dual Fuel and Gas Engines (Retrofits and New)

Principal Investigator:

Scott Curran, Oak Ridge National Laboratory

Presenter

Daanish Tyrewala, Oak Ridge National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA046_Curran_2025_o.pdf

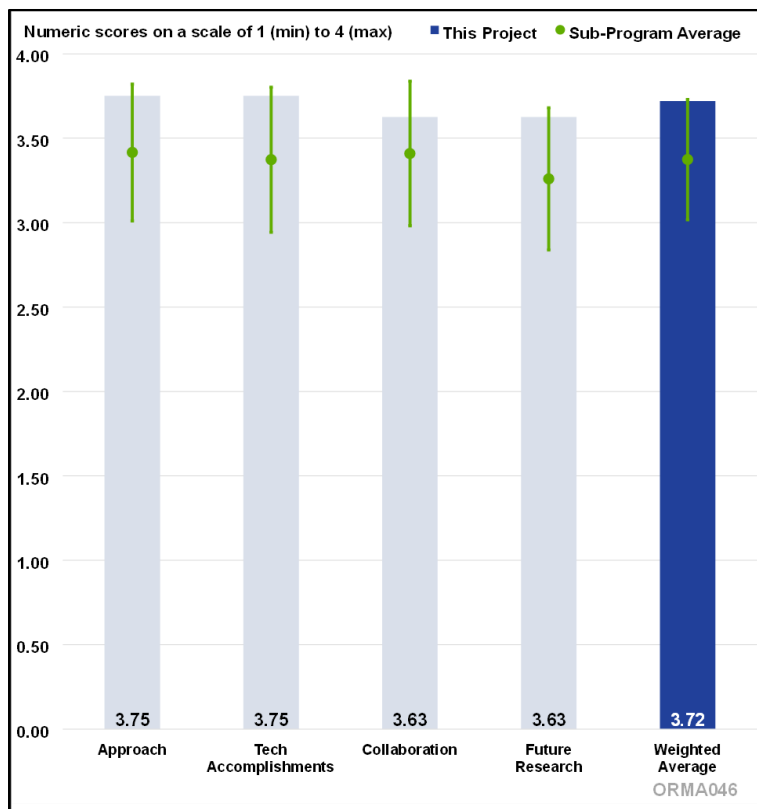


Figure 3-24 - Presentation Number: ORMA046 Presentation Title: Ammonia for 4-Stroke Marine Dual Fuel and Gas Engines (Retrofits and New) Principal Investigator: Scott Curran, Oak Ridge National Laboratory

Presentation Number:

ORMA048

Presentation Title:

Medium Duty Off-Road DME Engine Achieving High Efficiency and Ultra Low Emissions

Principal Investigator:

André Boehman, University of Michigan

Presenter

Chuck Mueller, Sandia National Laboratories

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 80% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 20% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

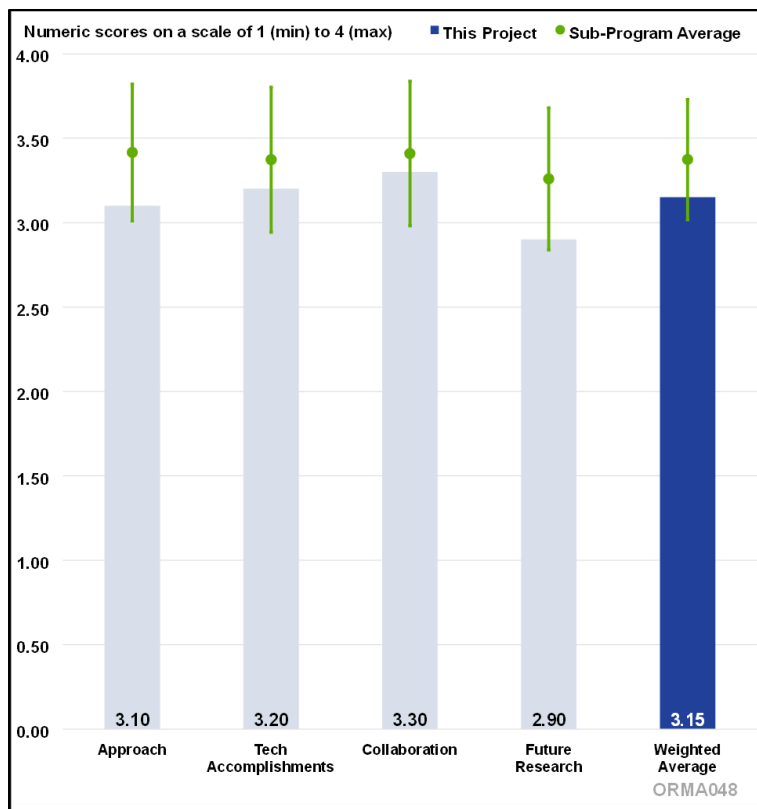


Figure 3-25 - Presentation Number: ORMA048 Presentation Title: Medium Duty Off-Road DME Engine Achieving High Efficiency and Ultra Low Emissions Principal Investigator: André Boehman, University of Michigan

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA048_Boehman_2025_o.pdf

Presentation Number:

ORMA050

Presentation Title:

A Low Greenhouse Gas Advanced Spark Ignition Engine that can Operate on Natural Gas and Natural Gas-Hydrogen Blends with Diesel

Principal Investigator:

Jeff Naber, Michigan Technical University

Presenter

Scott Miles, John Deere

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA050_Naber_2025_o.p df

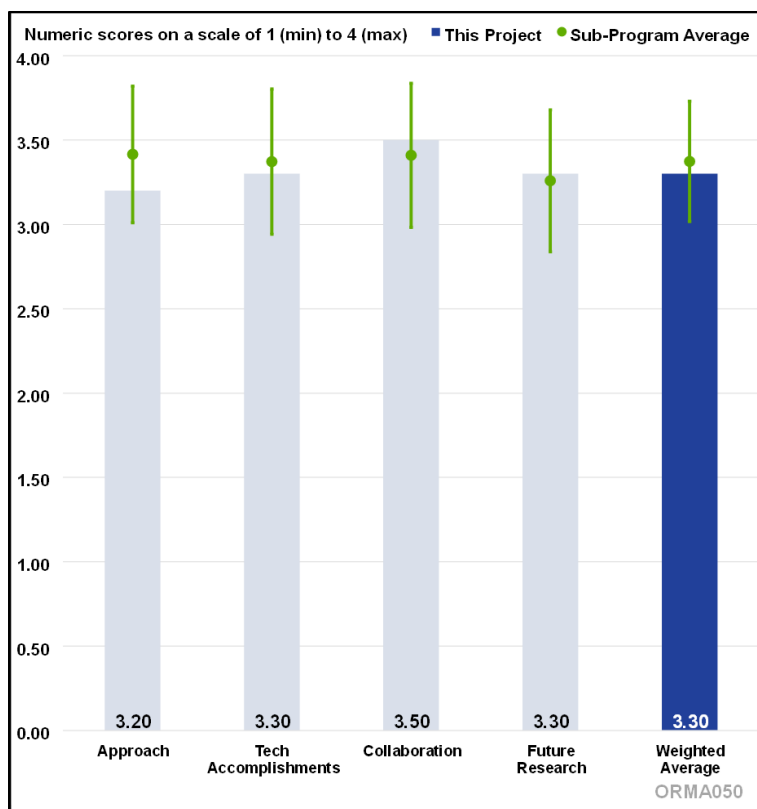


Figure 3-26 - Presentation Number: ORMA050 Presentation Title: A Low Greenhouse Gas Advanced Spark Ignition Engine that can Operate on Natural Gas and Natural Gas-Hydrogen Blends with Diesel Principal Investigator: Jeff Naber, Michigan Technical University

Presentation Number:

ORMA052

Presentation Title:

Simulation of Jet Engine Performance Using SATF Blends

Principal Investigator:

Shashank Yellapantula, National Renewable Energy Laboratory

Presenter

Shashank Yellapantula, National Renewable Energy Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA052_Yellapantula_2025_o.pdf

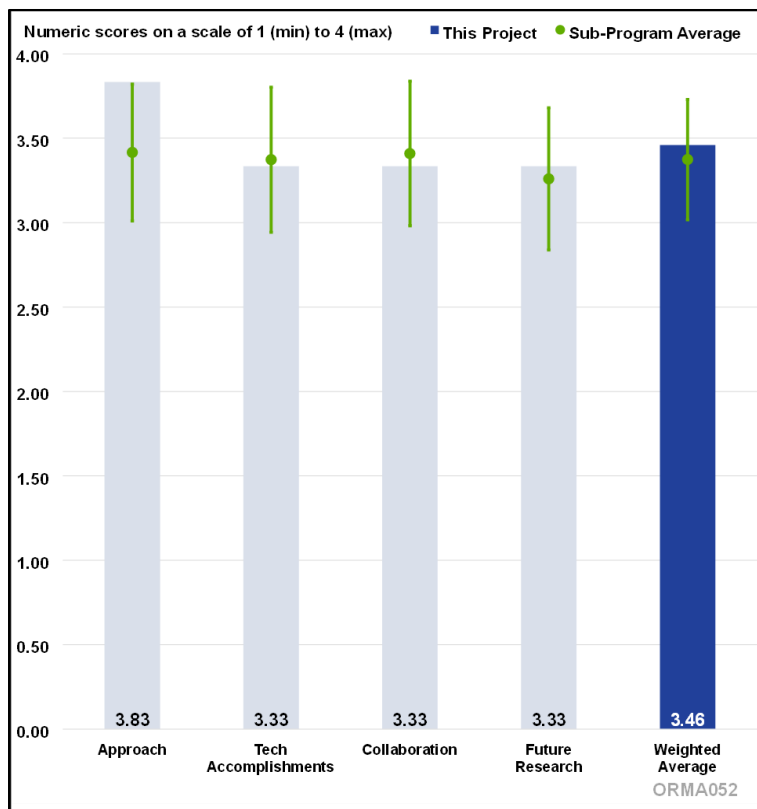


Figure 3-27 - Presentation Number: ORMA052 Presentation
Title: Simulation of Jet Engine Performance Using SATF
Blends Principal Investigator: Shashank Yellapantula, National
Renewable Energy Laboratory

Presentation Number:

ORMA055

Presentation Title:

High Energy-Efficient Hybrid Excavator Powered by Hydrogen Combustion Engine

Principal Investigator:

Andrea Vacca, Purdue University

Presenter

Andrea Vacca, Purdue University

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA055_Vacca_2025_o.pdf

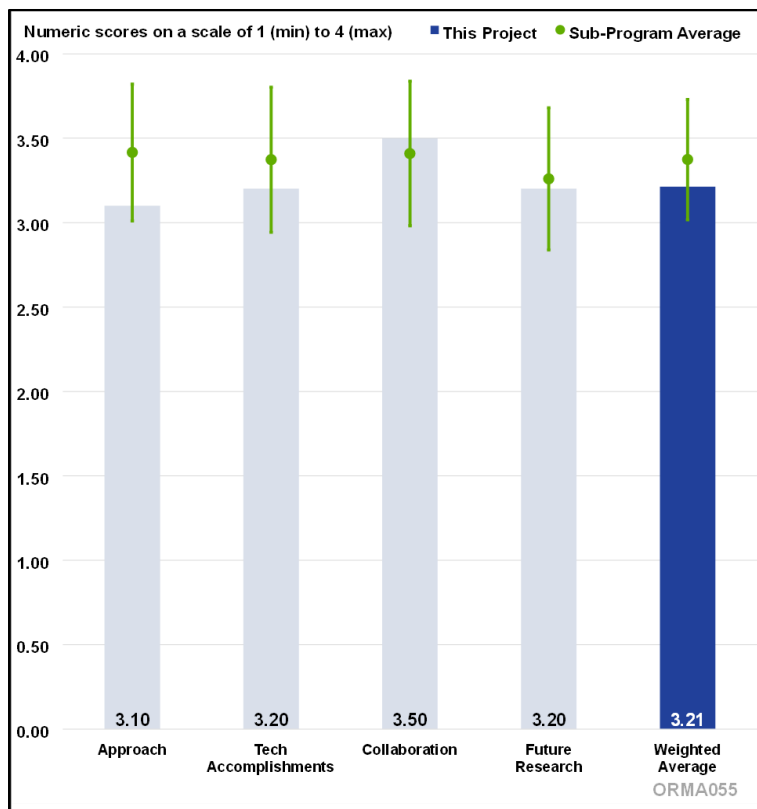


Figure 3-28 - Presentation Number: ORMA055 Presentation Title: High Energy-Efficient Hybrid Excavator Powered by Hydrogen Combustion Engine Principal Investigator: Andrea Vacca, Purdue University

Presentation Number:

ORMA056

Presentation Title:

Transient-Capable Hydrogen-Hybrid for Off-Road (THOR)

Principal Investigator:

Chad Koci, Caterpillar Inc.

Presenter

Chad Koci, Caterpillar Inc.

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

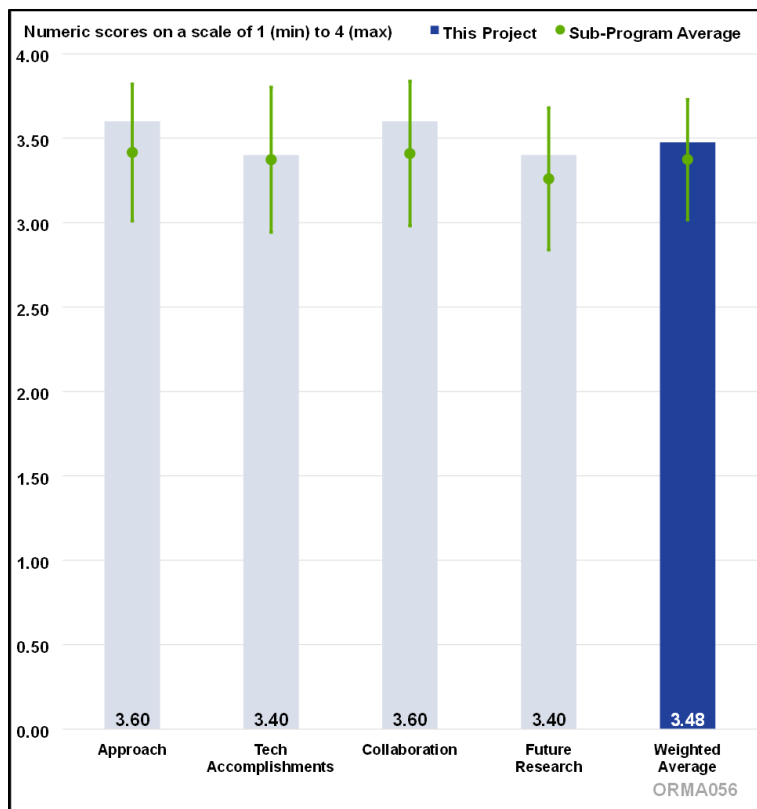


Figure 3-29 - Presentation Number: ORMA056 Presentation
Title: Transient-Capable Hydrogen-Hybrid for Off-Road (THOR)
Principal Investigator: Chad Koci, Caterpillar Inc.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA056_Koci_2025_o.pdf

Presentation Number:

ORMA057

Presentation Title:

High Power, Ultra-Low Emissions
HD H₂ Engine

Principal Investigator:

Nathan Peters, Dumarey USA

Presenter

Nathan Peters, Dumarey USA

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

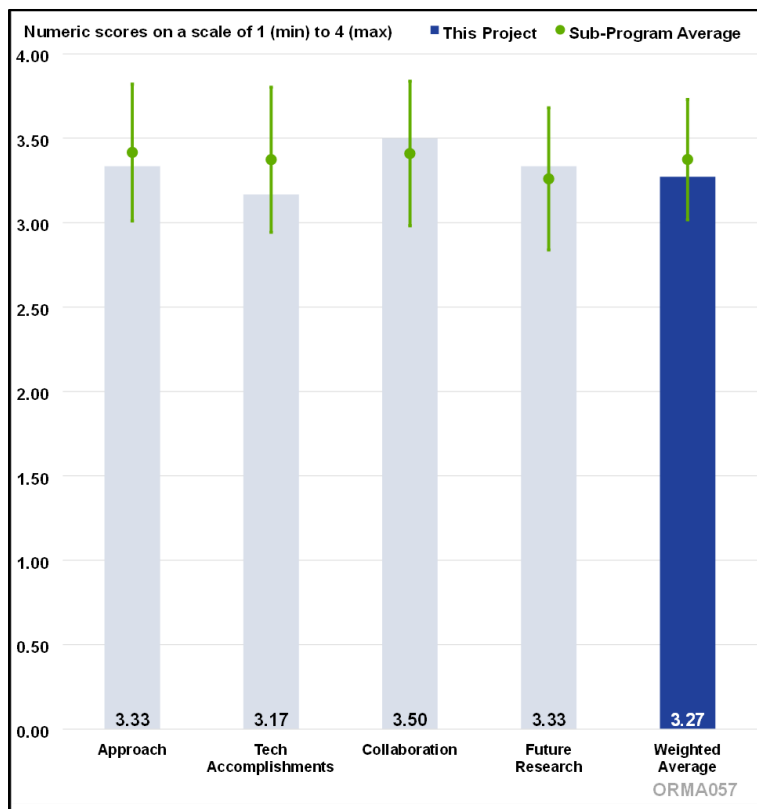


Figure 3-30 - Presentation Number: ORMA057 Presentation
Title: High Power, Ultra-Low Emissions HD H₂ Engine Principal
Investigator: Nathan Peters, Dumarey USA

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA057_Peters_2025_o.pdf

Presentation Number:

ORMA058

Presentation Title:

Greatly Reduced Vehicle Platinum Group Metal (PGM) Content Using Engineered, Highly Dispersed Precious Metal Catalysts

Principal Investigator:

Yong Wang, Washington State University

Presenter

Yong Wang, Washington State University

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 80% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 20% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA058_Wang_2025_o.pdf

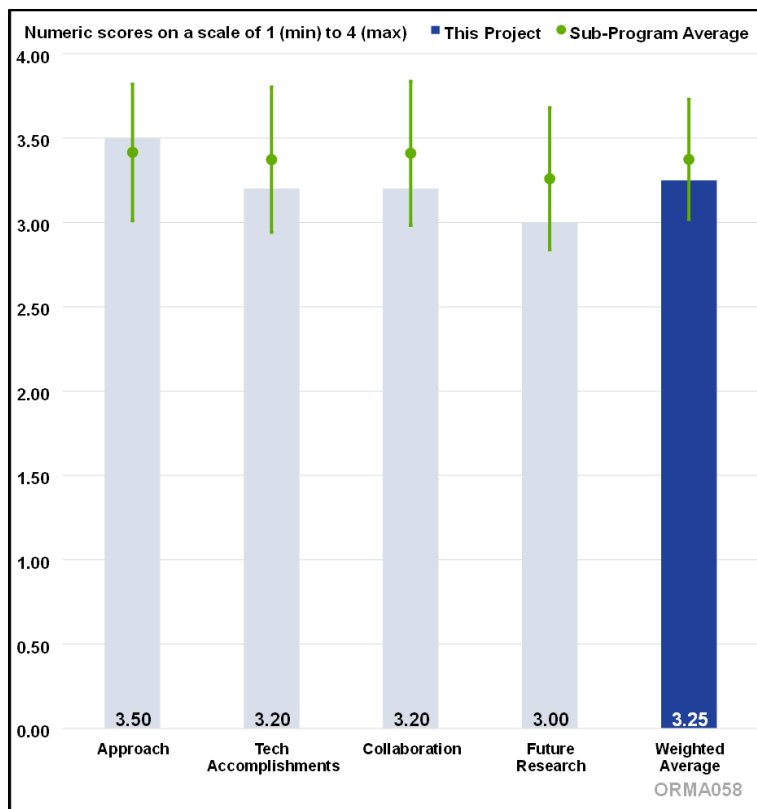


Figure 3-31 - Presentation Number: ORMA058 Presentation Title: Greatly Reduced Vehicle Platinum Group Metal (PGM) Content Using Engineered, Highly Dispersed Precious Metal Catalysts Principal Investigator: Yong Wang, Washington State University

Presentation Number:

ORMA059

Presentation Title:

Robust NH₃-SCR Catalysts to Enable H₂-ICEs

Principal Investigator:

Yong Wang, Pacific Northwest National Laboratory

Presenter

Kenneth Rappe, Pacific Northwest National Laboratory

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

80% of reviewers felt that the project was relevant to current DOE objectives, 20% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 60% of reviewers felt that the resources were sufficient, 20% of reviewers felt that the resources were insufficient, 20% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA059_Rappe_2025_o.p df

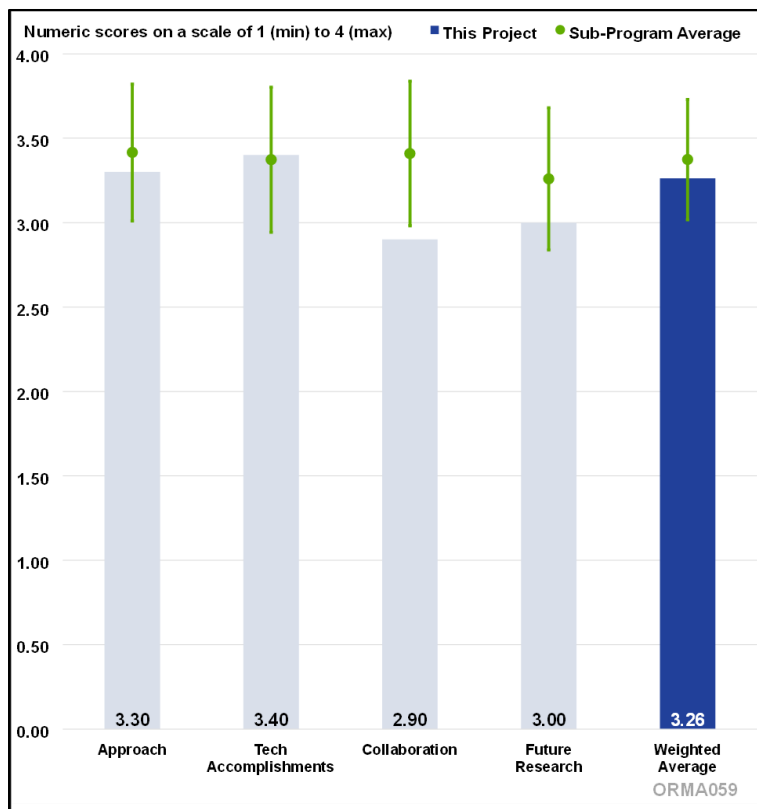


Figure 3-32 - Presentation Number: ORMA059 Presentation Title: Robust NH₃-SCR Catalysts to Enable H₂-ICEs Principal Investigator: Yong Wang, Pacific Northwest National Laboratory

Presentation Number:

ORMA060

Presentation Title:

Development and Demonstration of a Medium-Duty Off-Road DME Engine with a Combustion Recipe for Ultra-Low NO_x

Principal Investigator:

Ben Lawler, Clemson University

Presenter

Ben Lawler, Clemson University

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA060_Lawler_2025_o.pdf

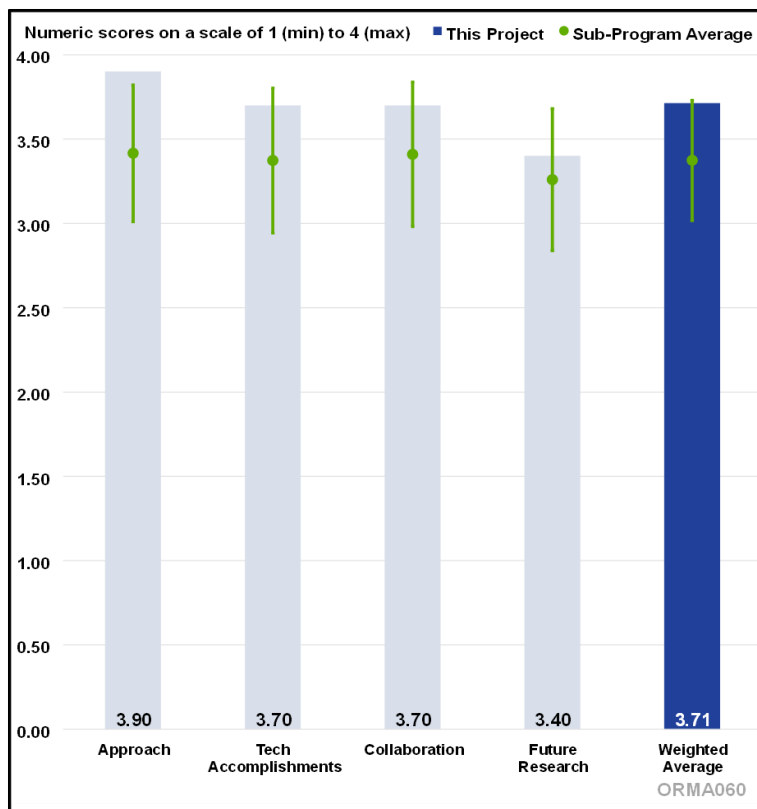


Figure 3-33 - Presentation Number: ORMA060 Presentation Title: Development and Demonstration of a Medium-Duty Off-Road DME Engine with a Combustion Recipe for Ultra-Low NO_x Principal Investigator: Ben Lawler, Clemson University

Presentation Number:

ORMA061

Presentation Title:

Performance and Emissions Characteristics of a Locomotive Engine Using Biofuels

Principal Investigator:

Muni Biruduganti, Argonne National Laboratory

Presenter

Muni Biruduganti, Argonne National Laboratory

Reviewer Sample Size

A total of five reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 80% of reviewers felt that the resources were sufficient, 20% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA061_Biruduganti_2025_o.pdf

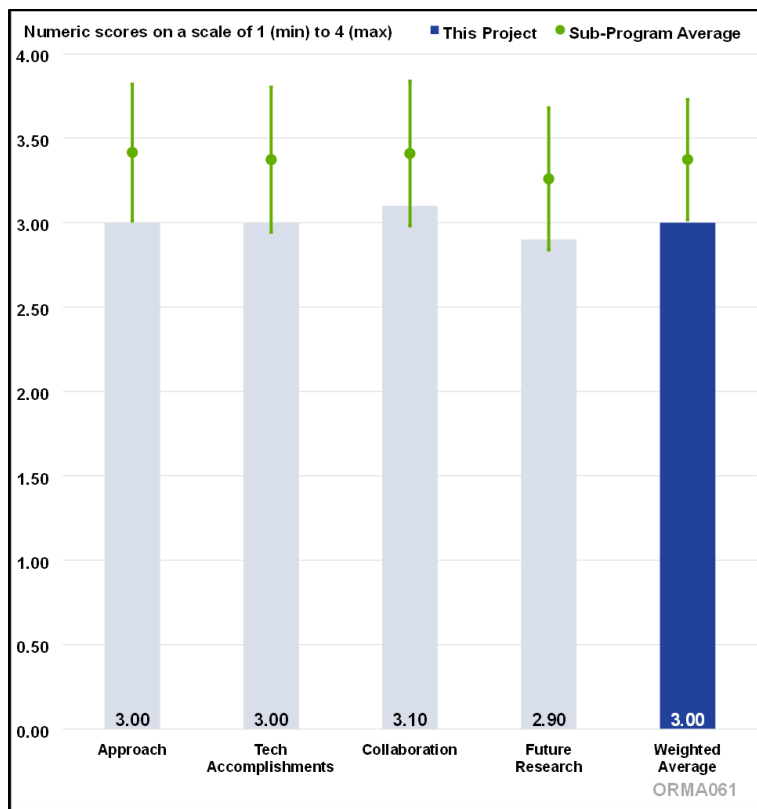


Figure 3-34 - Presentation Number: ORMA061 Presentation Title: Performance and Emissions Characteristics of a Locomotive Engine Using Biofuels Principal Investigator: Muni Biruduganti, Argonne National Laboratory

Presentation Number:

ORMA062

Presentation Title:

Measurements of Fundamental Combustion Behavior: SATFs and Surrogates

Principal Investigator:

Scott Goldsborough, Argonne National Laboratory

Presenter

Scott Goldsborough, Argonne National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA062_Goldsborough_2025_o.pdf

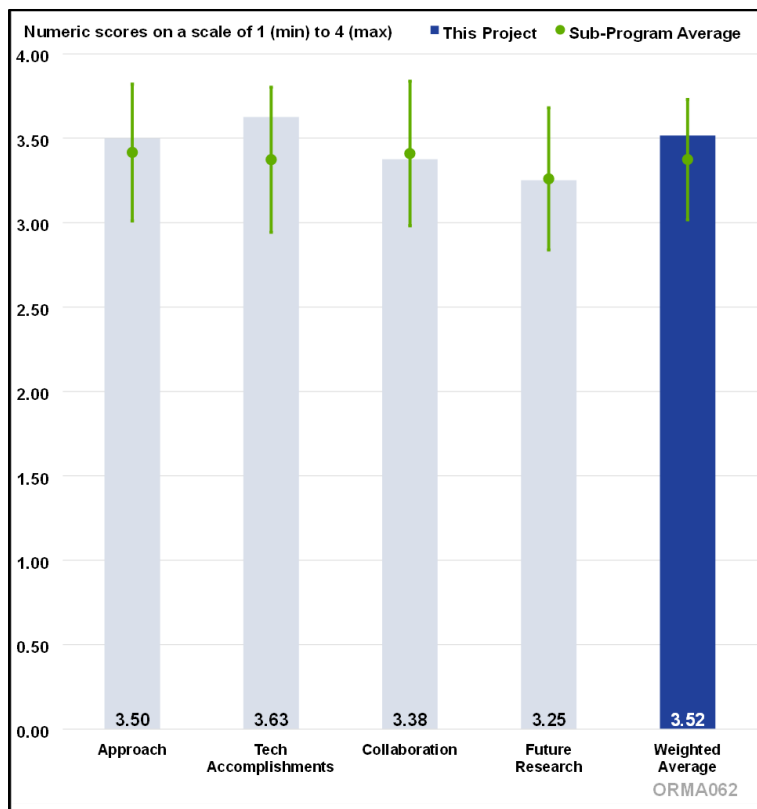


Figure 3-35 - Presentation Number: ORMA062 Presentation Title: Measurements of Fundamental Combustion Behavior: SATFs and Surrogates Principal Investigator: Scott Goldsborough, Argonne National Laboratory

Presentation Number:

ORMA064

Presentation Title:

Development of a High-Efficiency, Low-Emissions, Heavy-Duty Hydrogen Internal Combustion Engine

Principal Investigator:

Jay Shah, Cummins Inc.

Presenter

Jay Shah, Cummins Inc.

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA064_Shah_2025_o.pdf

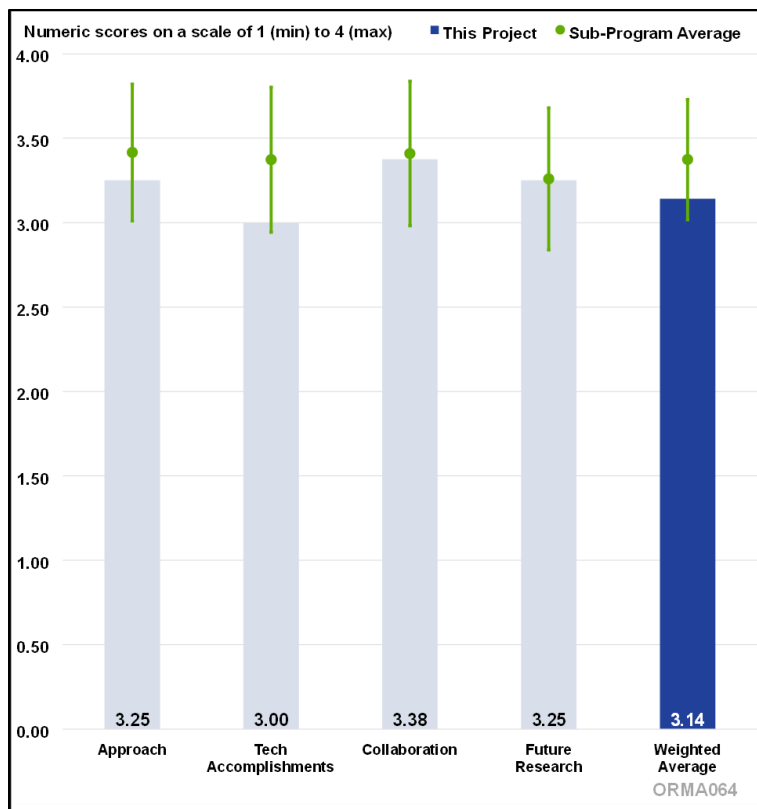


Figure 3-36 - Presentation Number: ORMA064 Presentation Title Development of a High-Efficiency, Low Emissions, Heavy-Duty Hydrogen Internal Combustion Engine Principal Investigator: Jay Shah, Cummins Inc.

Presentation Number:

ORMA066

Presentation Title:

High-Fidelity CFD Modeling of Aviation Emissions

Principal Investigator:

Chao Xu, Argonne National Laboratory

Presenter

Chao Xu, Argonne National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 67% of reviewers felt that the resources were sufficient, 33% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/ORMA066_Xu_2025_o.pdf

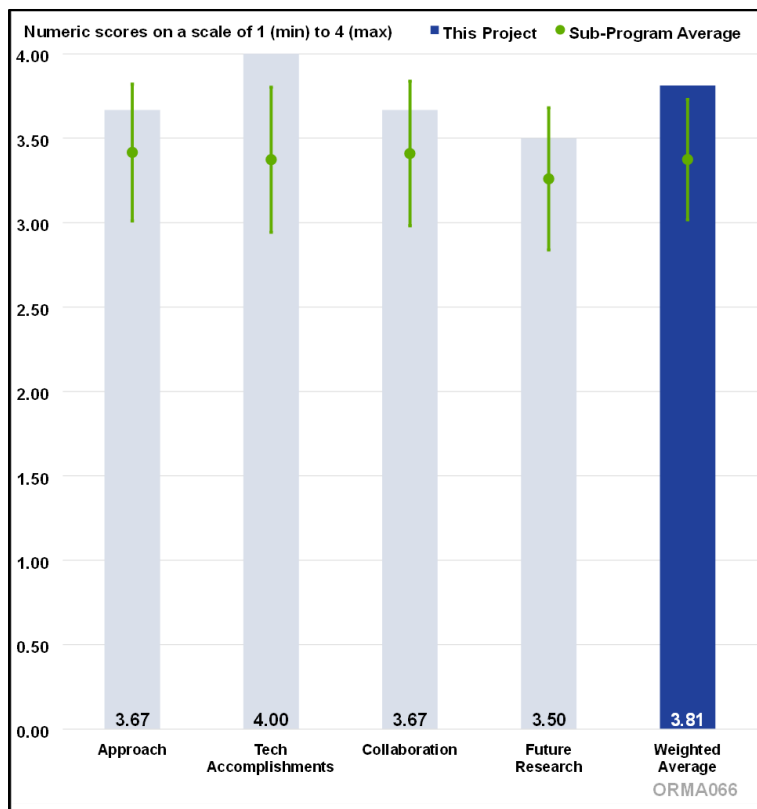


Figure 3-37 - Presentation Number: ORMA066 Presentation
Title: High-Fidelity CFD Modeling of Aviation Emissions
Principal Investigator: Chao Xu, Argonne National Laboratory

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4. Energy Efficient Mobility Systems

The Vehicle Technologies Office (VTO) funds research and development (R&D) of engines, batteries, power electronics, motors, materials, and transportation systems. VTO leverages the unique capabilities and world-class expertise of the national laboratory system to innovate new vehicle technologies. VTO is uniquely positioned to accelerate innovative transportation technologies due to strategic public-private research partnerships with industry (e.g., the U.S. DRIVE Partnership, the 21st Century Truck Partnership) that leverage relevant expertise. These partnerships prevent duplication of effort, focus U.S. Department of Energy (DOE) research on critical R&D barriers, and accelerate progress.

The Energy Efficient Mobility Systems (EEMS) subprogram supports research, development, and demonstration of innovative mobility solutions that improve the affordability, accessibility, and energy efficiency of the overall transportation system. EEMS leverages emerging technologies such as connected and automated vehicles, information-based mobility-as-a-service platforms, and artificial intelligence (AI)-based transportation control systems to improve transportation energy efficiency through low-cost and domestic energy technologies. The EEMS subprogram also develops and utilizes large-scale transportation modeling and simulation capabilities to evaluate the impacts of new mobility solutions across multiple geographies and populations, ensuring that all Americans benefit from the development and deployment of innovative transportation technologies.

EEMS' research can be broadly characterized into three areas: modeling and simulation, connected and automated vehicle technologies, and other emerging technologies. Research and development of innovative mobility-system level approaches can result in multiple benefits including household and business cost savings by reducing transportation costs (e.g., frequency of maintenance, fuel, time lost in traffic, and parking costs), supporting local economies and job creation, increased accessibility and community connectivity, emissions reductions of criteria pollutants for cleaner air, and the reduction of emissions.

Project Feedback

In this merit review activity, each reviewer was asked to respond to a series of questions, involving multiple-choice responses, expository responses where text comments were requested, and numeric score responses (on a scale of 1.0 to 4.0). In the pages that follow, the multiple choice and numeric score questions will be presented in graph form for each project. A table presenting the average numeric score for each question for each project is presented below.

Table 4-1 – Project Feedback

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
EEMS013	ANL Core Modeling A3 – AMBER, Autonomie, Aeronomie	Phil Sharer (Argonne National Laboratory)	4-10	3.50	3.50	3.75	3.25	3.50
EEMS041	AVATAR	Dominik Karbowski (Argonne National Laboratory)	4-11	3.75	3.50	3.50	3.75	3.59
EEMS066	Livewire Data Platform – A Solution for Energy Efficient Mobility Systems (EEMS) Data Sharing	Lauren Spath-Luhning (National Renewable Energy Laboratory)	4-12	3.50	3.75	3.50	3.25	3.59
EEMS092	Multiregion Stakeholder Driven BEAM CORE Application	Anna Spurlock (Lawrence Berkeley National Laboratory)	4-13	3.50	3.50	3.75	3.50	3.53
EEMS094	ENACTED	Dominik Karbowski (Argonne National Laboratory)	4-14	3.33	3.33	3.67	3.33	3.38

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
EEMS099	MEP Core Tools	Venu Garikapati (National Renewable Energy Laboratory)	4-15	3.50	3.50	4.00	3.50	3.56
EEMS101	Core Tools: Real-Sim	Max Chen (Oak Ridge National Laboratory)	4-16	3.50	3.50	3.50	3.50	3.50
EEMS106	Developing an Energy-Conscious Traffic Signal Control System for Optimized Fuel Consumption in Connected Vehicle Environments	Mina Saritipi (University of Tennessee at Chattanooga)	4-17	3.67	3.50	3.67	3.67	3.58
EEMS110	Human Factors and Technologies Design to Improve User Acceptance of Pooled Rideshare (PR) for Increasing Transportation System Energy Efficiency	Yunyi Jia (Clemson University)	4-18	3.50	3.50	3.50	3.50	3.50
EEMS112	NREL Core Modeling & Decision Support Capabilities (RouteE, FASTSim, OpenPATH, T3CO)	Jeff Gonder (National Renewable Energy Laboratory)	4-19	3.25	3.25	3.75	3.50	3.34

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
EEMS113	Testing and Evaluation of Curb Management and Integrated Strategies to Catalyze Market Adoption of Electric Vehicles	Lauren Harper (Los Angeles Cleantech Incubator)	4-20	3.50	3.50	3.50	N/A	3.50
EEMS114	Real Twin	Ross Wang (Oak Ridge National Laboratory)	4-21	3.00	2.75	3.00	2.75	2.84
EEMS115	Developing a Multiscale Simulation Framework to Evaluate Autonomous Vehicle On-Board Compute Energy-Efficiency, Performance, and Reliability	Ben Feinberg (Sandia National Laboratories)	4-22	3.00	2.50	2.75	2.50	2.66
EEMS116	High-Quality Perception Data	Zach Asher (Western Michigan University)	4-23	2.50	2.50	2.50	N/A	2.50
EEMS117	Visual-Enhanced Cooperative Traffic Operations (VECTOR) System	Achilleas Kourtellis (University of South Florida)	4-24	2.50	2.33	3.33	2.17	2.48

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
EEMS119	Improved Mobility and Energy Savings Through Optimization of Cooperative Driving Automation (CDA) Application for Signal Controls for Arterial Mixed Traffic Scenarios	Xiao-Yun Lu (Lawrence Berkeley National Laboratory)	4-25	3.00	3.00	3.50	3.50	3.13
EEMS120	A Cooperative Driving Automation (CDA) Framework for Communications	Adian Cook (Oak Ridge National Laboratory)	4-26	3.25	3.50	3.25	3.25	3.38
EEMS122	Pathways to Affordable, Convenient, Efficient Regional Mobility	Joshua Auld (Argonne National Laboratory)	4-27	3.50	3.75	4.00	3.50	3.69
EEMS123	Freight in the Loop	Kevin Stutenberg (Argonne National Laboratory)	4-28	3.00	3.38	3.25	3.38	3.27
EEMS124	Deployment of Real-Sim/Real-Twin Scenario Library Generation and Benchmark of Energy Centric CAV Controls	Ross Wang (Oak Ridge National Laboratory)	4-29	3.67	3.83	3.83	3.67	3.77

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
EEMS125	Energy Metrics in Traffic Signal Performance Measures	Joseph Fish (National Renewable Energy Laboratory)	4-30	3.33	3.33	3.17	3.17	3.29
EEMS127	Deploying Autonomous, On-Demand Energy Efficient Mobility Solutions in Tulsa's Underserved Communities	Samitha Samaranyake (Cornell University)	4-31	3.17	3.17	3.50	3.00	3.19
EEMS128	National Impacts of Community-Level Strategies to Improve Convenience of Mobility	Chris Hoehne (National Renewable Energy Laboratory)	4-32	3.00	3.00	3.00	3.00	3.00
EEMS129	Using Artificial Intelligence to Predict Ridership and Optimize Shared Mobility	Josh Rands (Terracity)	4-33	3.25	3.00	3.00	3.00	3.06
EEMS132	POLARIS – Transportation Systems and Mobility Tools Core Maintenance	Joshua Auld (Argonne National Laboratory)	4-34	3.75	3.50	3.75	3.50	3.59
EEMS133	ITES4: Integrated Transportation and Energy Cross-Sectoral System of Systems at Scale	Joshua Auld (Argonne National Laboratory)	4-35	3.33	3.17	3.00	3.17	3.19

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
EEMS134	Development of Standardized Test Procedures for CV and AV Energy Consumption and Emissions	Michael Duoba (Argonne National Laboratory)	4-36	3.63	3.50	3.25	3.63	3.52
EEMS135	Energy-Transit Nexus Tools for Bus Fleet Electrification (NEXTBUS)	Jake Holden (National Renewable Energy Laboratory)	4-37	3.67	3.67	3.33	3.67	3.63
EEMS136	A Facility Scale Automated Mobility System	Jered Dean (LUCI Mobility)	4-38	3.50	3.50	3.25	3.75	3.50
EEMS137	Increasing Mobility Energy Productivity, Operational Efficiency, with Low-Speed Automation for On-Demand Transit or Goods Movement in First-Mile/Last-Mile	Anuja Sonalker (STEER Tech)	4-39	3.75	3.50	3.50	3.50	3.56
EEMS138	Mauka Energy FEVER: Tool Developing Heavy Duty Electric Vehicle Energy Transportation Cost Mapping	David Hamilton (Oregon State University)	4-40	3.75	4.00	3.75	3.75	3.88
EEMS139	AI-Powered Autonomy-Aware Neighborhood Mobility Zones	Philip Pugliese (Chattanooga Transit)	4-41	3.38	3.25	3.25	3.38	3.30

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
EEMS140	Multi-Level Connected and Automated Transit System (M-CATS)	Jinhua Zhao (Massachusetts Institute of Technology)	4-42	2.75	2.50	3.25	3.00	2.72
EEMS141	Co-E3T: Energy-Efficient and Equitable Transit through User-Centric Hardware and Software Co-Development and Community Co-Design, University of Alabama Transit	Xinwu Qian (Rice University)	4-43	3.38	3.38	3.25	3.00	3.31
EEMS142	Improving Accessibility and Efficiency of Public Transportation via Optimal Integration with Shared Autonomous Electric Vehicles in Tribal Communities	Dong Zhang (The University of Oklahoma)	4-44	3.17	3.33	3.50	3.50	3.33
EEMS143	Energy Efficient Sensing and Computing for AVs	Robert Patton (Oak Ridge National Laboratory)	4-45	3.50	3.25	3.25	3.50	3.34
EEMS144	RoadRunner Core Tools	Dominik Karbowski (Argonne National Laboratory)	4-46	3.25	3.50	3.50	3.25	3.41

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
EEMS145	BEAM CORE Core Tools	Anna Spurlock (Lawrence Berkeley National Laboratory)	4-47	3.75	3.50	3.25	3.75	3.56
EEMS146	Distributed Artificial-intelligence (AI)-based Signal Control (DASiC)	Ross Wang (Oak Ridge National Laboratory)	4-48	3.00	3.00	3.50	3.33	3.10
EEMS148	Blueprinting Electrified Transit System Implementation †	Noah Horesh (Colorado State University)	4-49	2.75	3.25	3.00	3.25	3.09
EEMS149	Next Generation Transit Mobility System†	Jason Hanlin (Flow State Analytics)	4-50	3.75	3.75	3.75	3.00	3.66
EEMS150	Offline Reinforcement Learning-Based Traffic Management to Improve System Wide Energy Efficiency†	Lokendra Chauhan (Qen Labs Inc.)	4-51	3.00	3.00	2.83	2.83	2.96
EEMS151	Sustainable Means of Urban Transportation for Cities†	Tony Gale (Swift Rails)	4-52	2.50	2.38	2.25	2.75	2.44
Overall Average				3.31	3.29	3.36	3.30	3.30

† Denotes a poster presentation.

Presentation Number:

EEMS013

Presentation Title:

ANL Core Modeling A3 – AMBER, Autonomie, Aeronomie

Principal Investigator:

Phil Sharer, Argonne National Laboratory

Presenter

Phil Sharer, Argonne National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS013_Sharer_2025_o.pdf

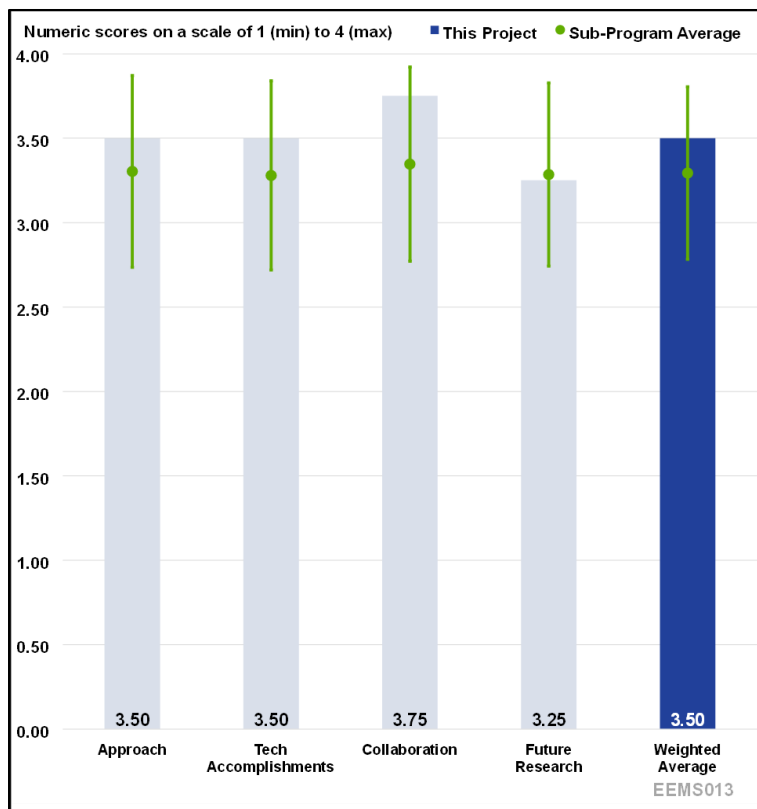


Figure 4-1 - Presentation Number: EEMS013 Presentation Title: ANL Core Modeling A3 – AMBER, Autonomie, Aeronomie Principal Investigator: Phil Sharer, Argonne National Laboratory

Presentation Number:

EEMS041

Presentation Title:

AVATAR

Principal Investigator:

Dominik Karbowski, Argonne
National Laboratory

Presenter

Dominik Karbowski, Argonne
National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the
project was relevant to current DOE
objectives, 0% of reviewers felt that
the project was not relevant, and
0% of reviewers did not indicate an
answer. 100% of reviewers felt that
the resources were sufficient, 0% of
reviewers felt that the resources
were insufficient, 0% of reviewers
felt that the resources were
excessive, and 0% of reviewers did
not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS041_Karbowski_2025_o.pdf

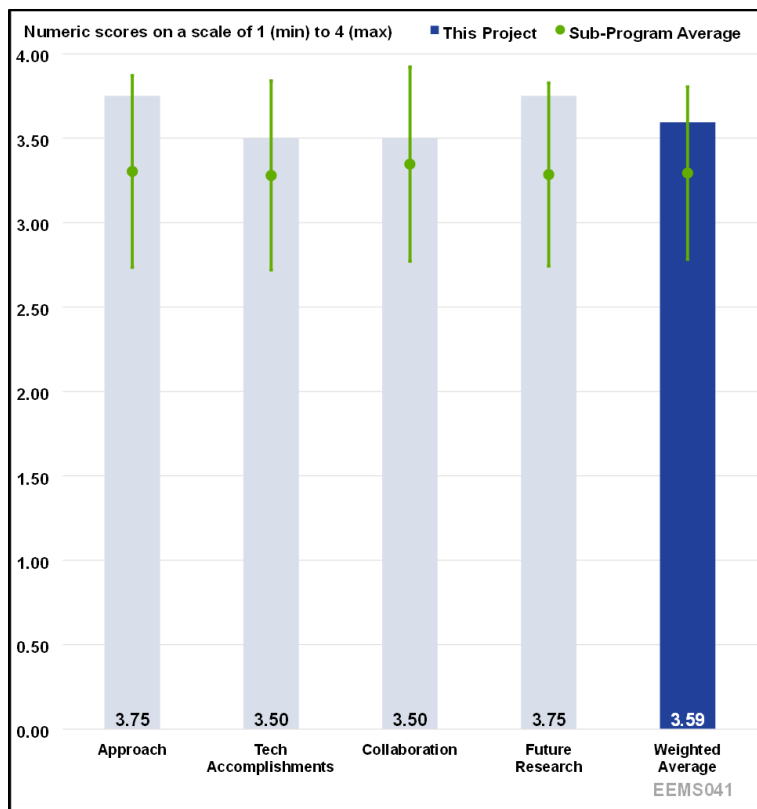


Figure 4-2 - Presentation Number: EEMS041 Presentation Title: AVATAR Principal Investigator: Dominik Karbowski, Argonne National Laboratory

Presentation Number:

EEMS066

Presentation Title:

Livewire Data Platform – A Solution for Energy Efficient Mobility Systems (EEMS) Data Sharing

Principal Investigator:

Lauren Spath-Luhring, National Renewable Energy Laboratory

Presenter

Lauren Spath-Luhring, National Renewable Energy Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS066_Spath-Luhring_2025_o.pdf

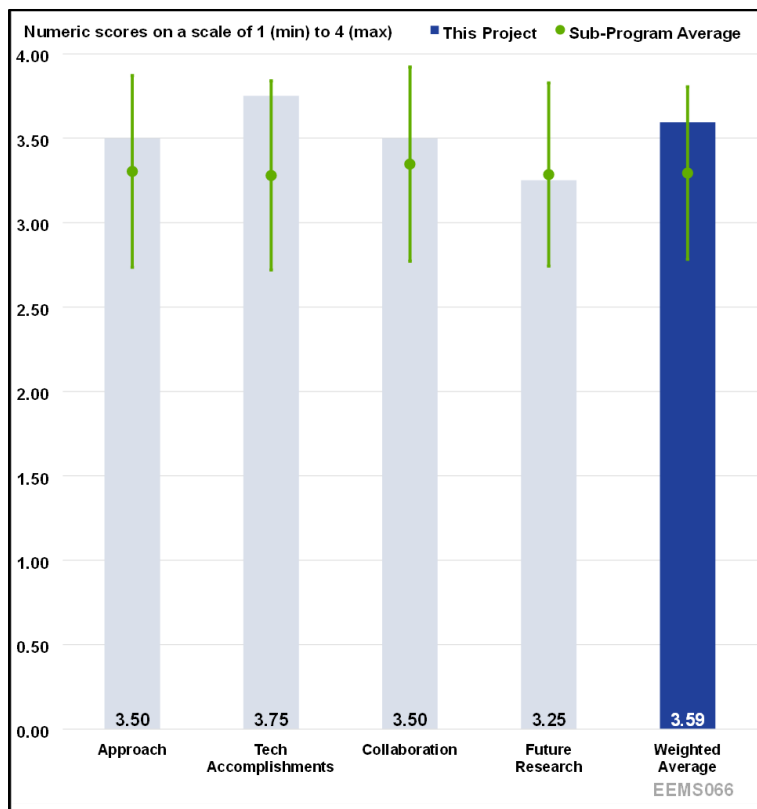


Figure 4-3 - Presentation Number: EEMS066 Presentation Title: Livewire Data Platform – A Solution for Energy Efficient Mobility Systems (EEMS) Data Sharing Principal Investigator: Lauren Spath-Luhring, National Renewable Energy Laboratory

Presentation Number:

EEMS092

Presentation Title:

Multiregion Stakeholder Driven
BEAM CORE Application

Principal Investigator:

Anna Spurlock, Lawrence Berkeley
National Laboratory

Presenter

Anna Spurlock, Lawrence Berkeley
National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the
project was relevant to current DOE
objectives, 0% of reviewers felt that
the project was not relevant, and
0% of reviewers did not indicate an
answer. 100% of reviewers felt that
the resources were sufficient, 0%
of reviewers felt that the resources
were insufficient, 0% of reviewers
felt that the resources were
excessive, and 0% of reviewers did
not indicate an answer.

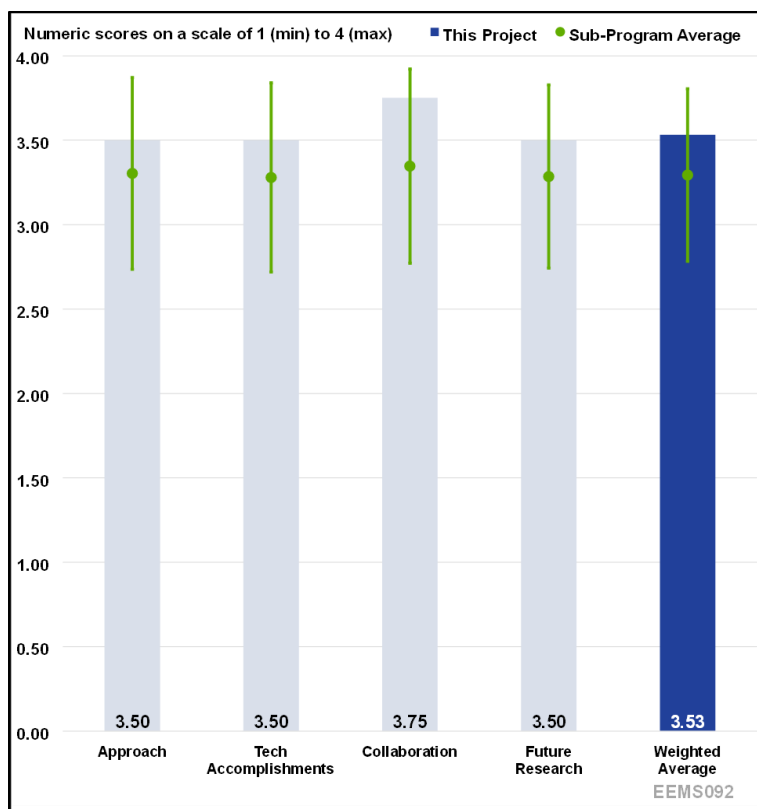


Figure 4-4 - Presentation Number: EEMS092 Presentation Title: Multiregion Stakeholder Driven BEAM CORE Application Principal Investigator: Anna Spurlock, Lawrence Berkeley National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS092_Spurlock_2025_o.pdf

Presentation Number:

EEMS094

Presentation Title:

ENACTED

Principal Investigator:

Dominik Karbowski, Argonne
National Laboratory

Presenter

Dominik Karbowski, Argonne
National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the
project was relevant to current DOE
objectives, 0% of reviewers felt that
the project was not relevant, and
0% of reviewers did not indicate an
answer. 100% of reviewers felt that
the resources were sufficient, 0% of
reviewers felt that the resources
were insufficient, 0% of reviewers
felt that the resources were
excessive, and 0% of reviewers did
not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS094_Karbowski_2025_o.pdf

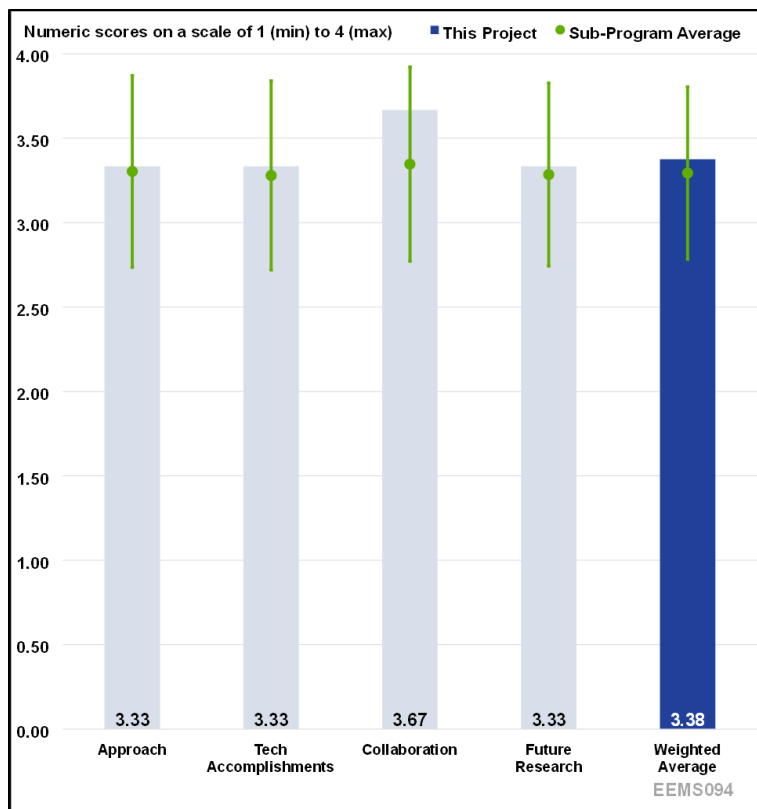


Figure 4-5 - Presentation Number: EEMS094 Presentation Title: ENACTED Principal Investigator: Dominik Karbowski, Argonne National Laboratory

Presentation Number:

EEMS099

Presentation Title:

MEP Core Tools

Principal Investigator:

Venu Garikapati, National
Renewable Energy Laboratory

Presenter

Venu Garikapati, National
Renewable Energy Laboratory

Reviewer Sample Size

A total of one reviewer evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the
project was relevant to current DOE
objectives, 0% of reviewers felt that
the project was not relevant, and
0% of reviewers did not indicate an
answer. 100% of reviewers felt that
the resources were sufficient, 0% of
reviewers felt that the resources
were insufficient, 0% of reviewers
felt that the resources were
excessive, and 0% of reviewers did
not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS099_Garikapati_2025_o.pdf

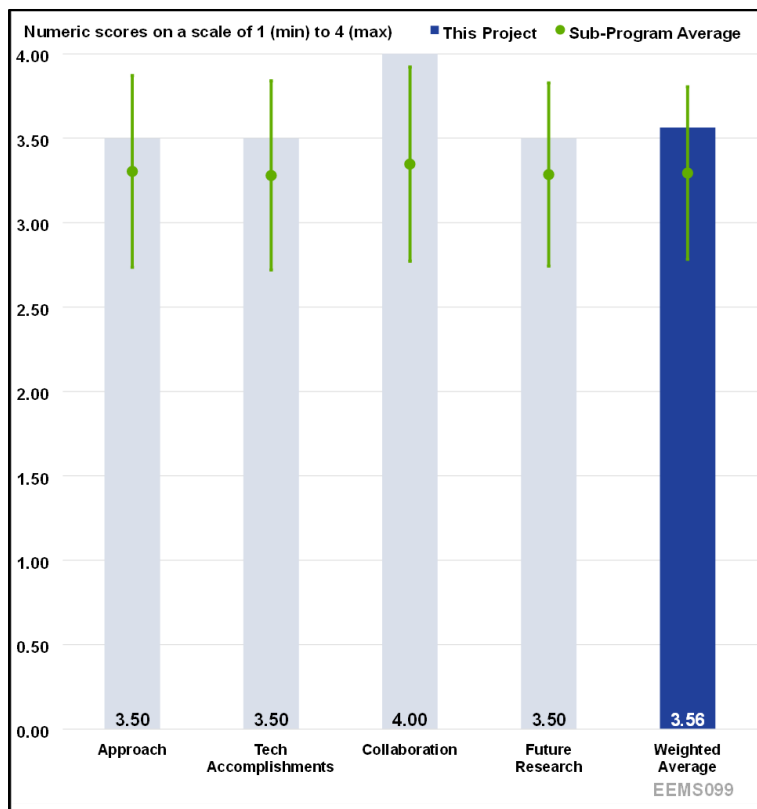


Figure 4-6 - Presentation Number: EEMS099 Presentation Title: MEP Core Tools Principal Investigator: Venu Garikapati, National Renewable Energy Laboratory

Presentation Number:

EEMS101

Presentation Title:

Core Tools: Real-Sim

Principal Investigator:

Max Chen, Oak Ridge National Laboratory

Presenter

Max Chen, Oak Ridge National laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS101_Chen_2025_o.pdf

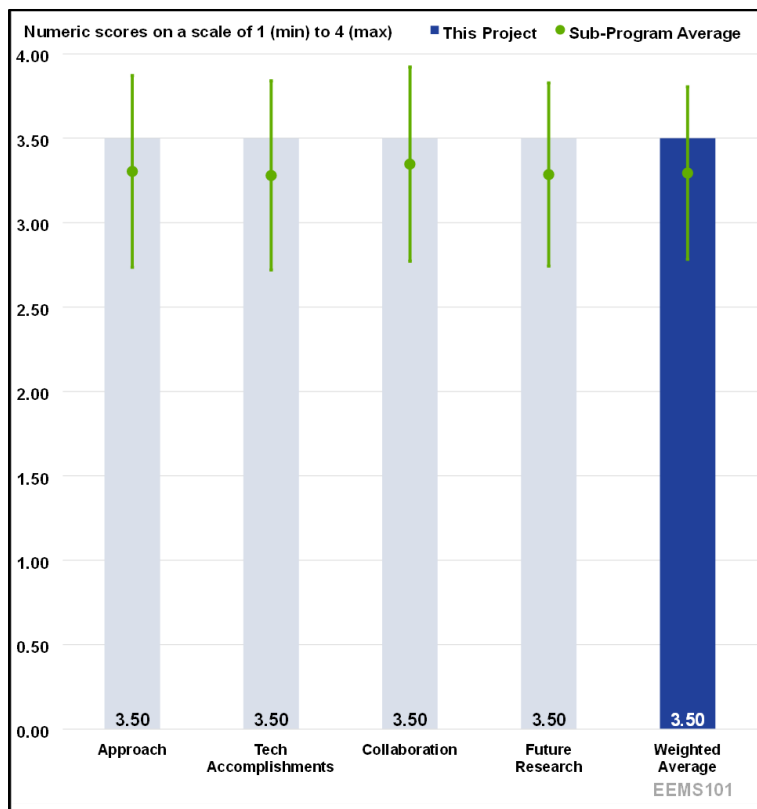


Figure 4-7 - Presentation Number: EEMS101 Presentation Title: Core Tools: Real-Sim Principal Investigator: Max Chen, Oak Ridge National Laboratory

Presentation Number:

EEMS106

Presentation Title:

Developing an Energy-Conscious Traffic Signal Control System for Optimized Fuel Consumption in Connected Vehicle Environments

Principal Investigator:

Mina Saritipi, University of Tennessee at Chattanooga

Presenter

Abilasha Saroj, Oak Ridge National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS106_Saritipi_2025_o.p df

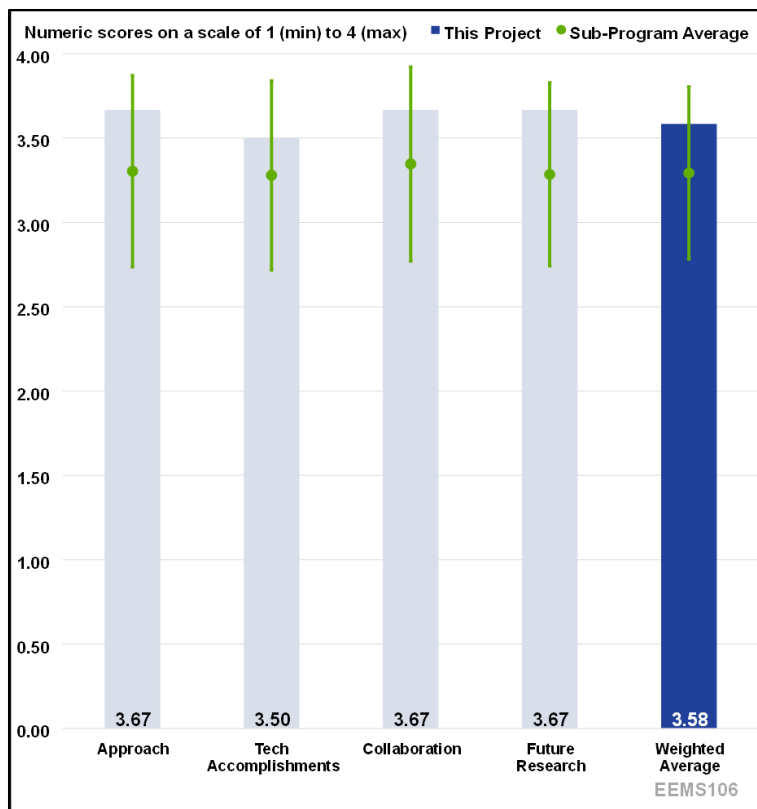


Figure 4-8 - Presentation Number: EEMS106 Presentation Title: Developing an Energy-Conscious Traffic Signal Control System for Optimized Fuel Consumption in Connected Vehicle Environments Principal Investigator: Mina Saritipi, University of Tennessee at Chattanooga

Presentation Number:

EEMS110

Presentation Title:

Human Factors and Technologies Design to Improve User Acceptance of Pooled Rideshare (PR) for Increasing Transportation System Energy Efficiency

Principal Investigator:

Yunyi Jia, Clemson University

Presenter

Yunyi Jia/Johnell Brooks, Clemson University

Reviewer Sample Size

A total of one reviewer evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

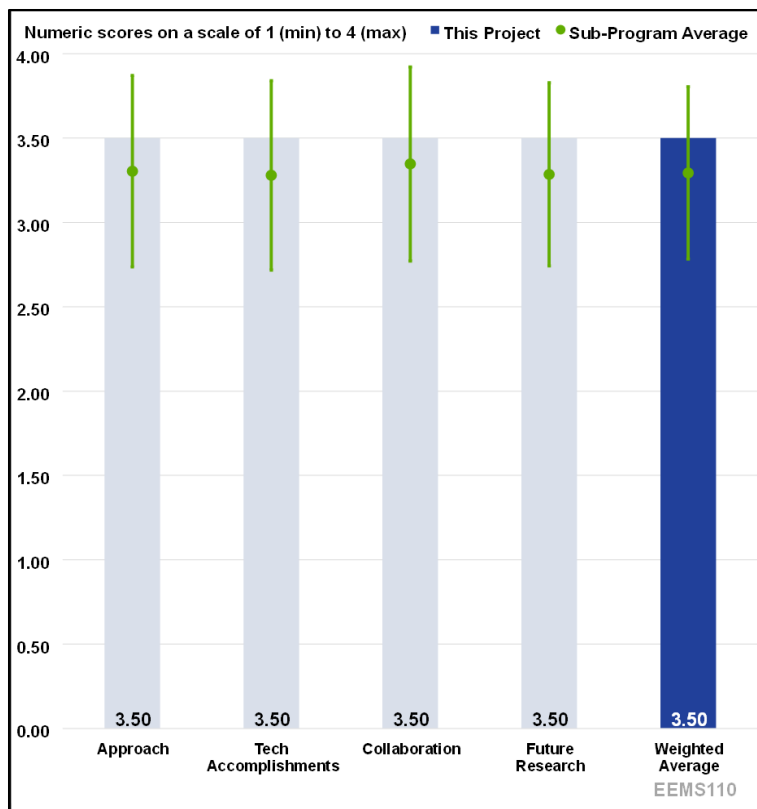


Figure 4-9 - Presentation Number: EEMS110 Presentation Title: Human Factors and Technologies Design to Improve User Acceptance of Pooled Rideshare (PR) for Increasing Transportation System Energy Efficiency Principal Investigator: Yunyi Jia, Clemson University

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS110_Jia_2025_o.pdf

Presentation Number:

EEMS112

Presentation Title:

NREL Core Modeling & Decision Support Capabilities (RouteE, FASTSim, OpenPATH, T3CO)

Principal Investigator:

Jeff Gonder, National Renewable Energy Laboratory

Presenter

Jeff Gonder, National Renewable Energy Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 50% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 50% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS112_Gonder_2025_o.pdf

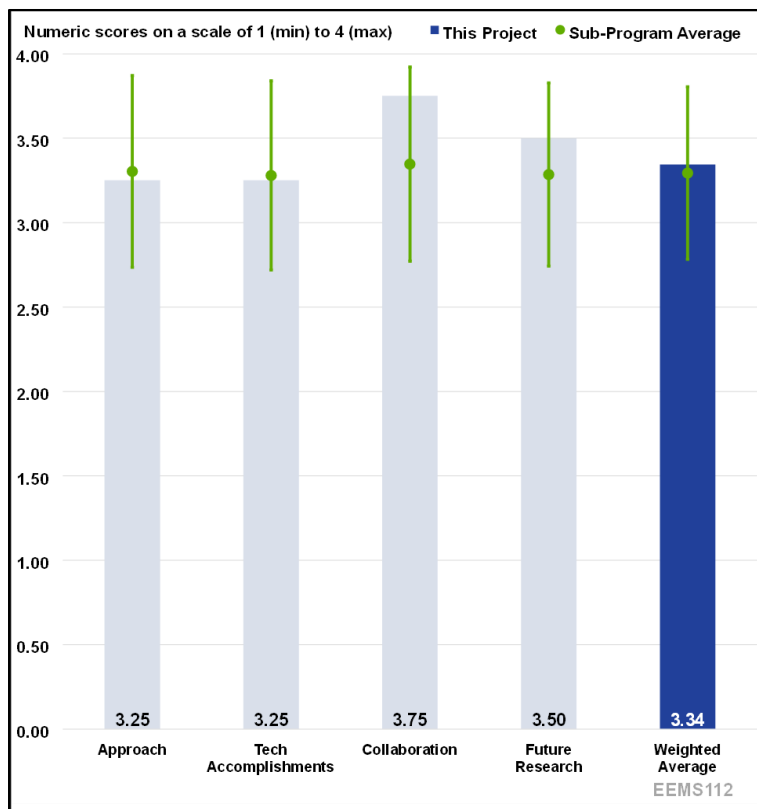


Figure 4-10 - Presentation Number: EEMS112 Presentation Title: NREL Core Modeling & Decision Support Capabilities (RouteE, FASTSim, OpenPATH, T3CO) Principal Investigator: Jeff Gonder, National Renewable Energy Laboratory

Presentation Number:

EEMS113

Presentation Title:

Testing and Evaluation of Curb Management and Integrated Strategies to Catalyze Market Adoption of Electric Vehicles

Principal Investigator:

Lauren Harper, Los Angeles
Cleantech Incubator

Presenter

Lauren Harper, Los Angeles
Cleantech Incubator

Reviewer Sample Size

A total of one reviewer evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS113_Harper_2025_o.pdf

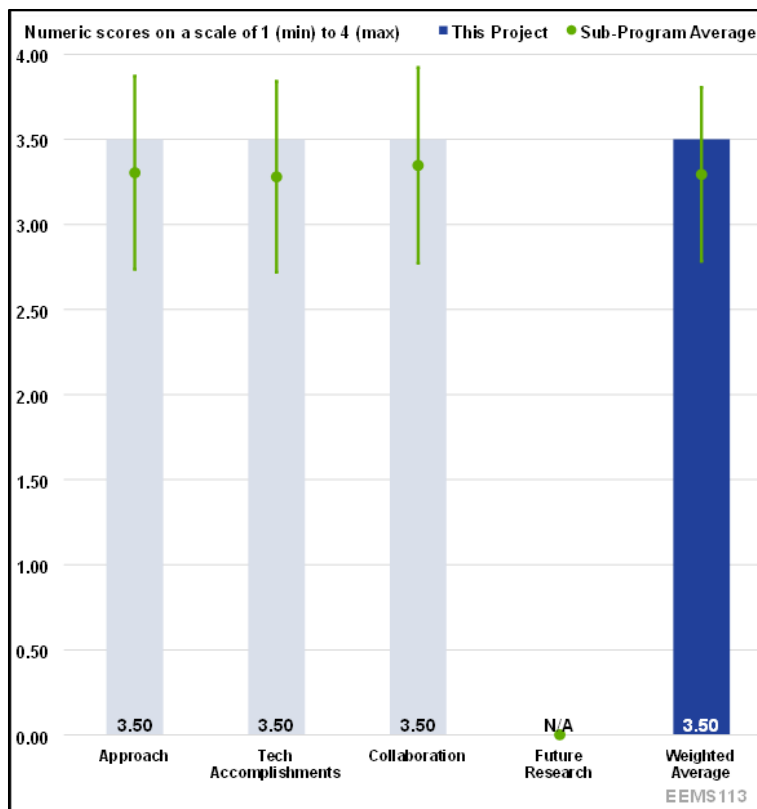


Figure 4-11 - Presentation Number: EEMS113 Presentation Title: Testing and Evaluation of Curb Management and Integrated Strategies to Catalyze Market Adoption of Electric Vehicles Principal Investigator: Lauren Harper, Los Angeles Cleantech Incubator

Presentation Number:

EEMS114

Presentation Title:

Real Twin

Principal Investigator:

Ross Wang, Oak Ridge National Laboratory

Presenter

Ross Wang, Oak Ridge National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS114_Wang_2025_o.pdf

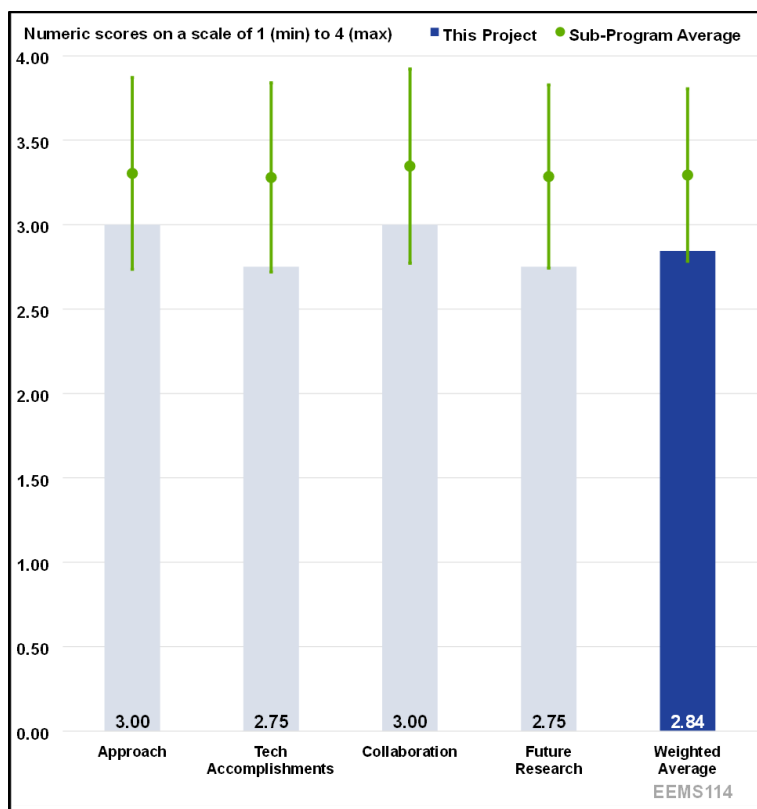


Figure 4-12 - Presentation Number: EEMS114 Presentation Title: Real Twin Principal Investigator: Ross Wang, Oak Ridge National Laboratory

Presentation Number:

EEMS115

Presentation Title:

Developing a Multiscale Simulation Framework to Evaluate Autonomous Vehicle On-Board Compute Energy-Efficiency, Performance, and Reliability

Principal Investigator:

Ben Feinberg, Sandia National Laboratories

Presenter

Ben Feinberg, Sandia National Laboratories

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

50% of reviewers felt that the project was relevant to current DOE objectives, 50% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 50% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 50% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS115_Feinberg_2025_o.pdf

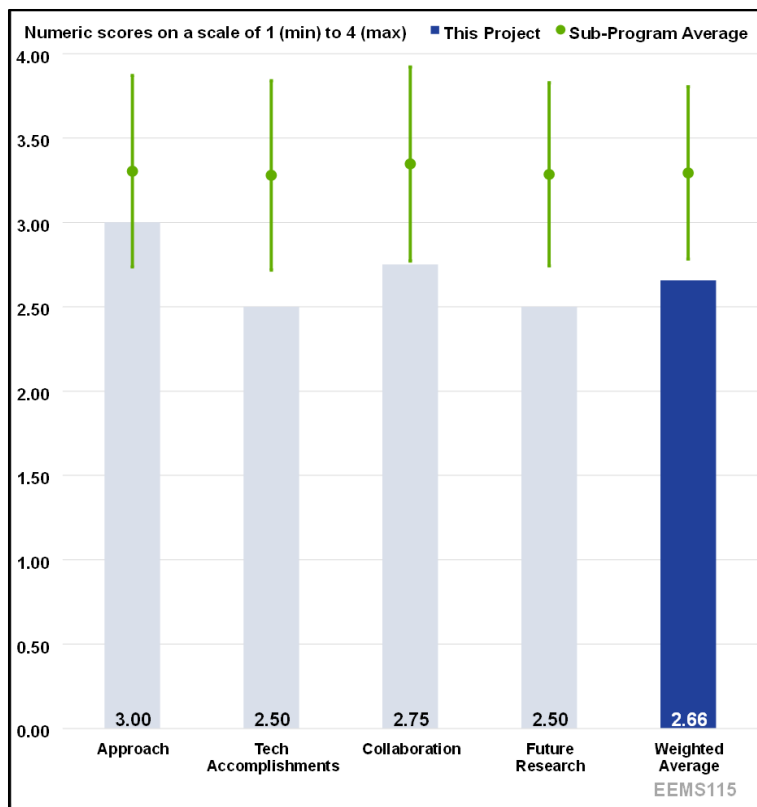


Figure 4-13 - Presentation Number: EEMS115 Presentation Title: Developing a Multiscale Simulation Framework to Evaluate Autonomous Vehicle On-Board Compute Energy-Efficiency, Performance, and Reliability Principal Investigator: Ben Feinberg, Sandia National Laboratories

Presentation Number:

EEMS116

Presentation Title:

High-Quality Perception Data

Principal Investigator:

Zach Asher, Western Michigan University

Presenter

Zach Asher, Western Michigan University

Reviewer Sample Size

A total of one reviewer evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS116_Asher_2025_o.pdf

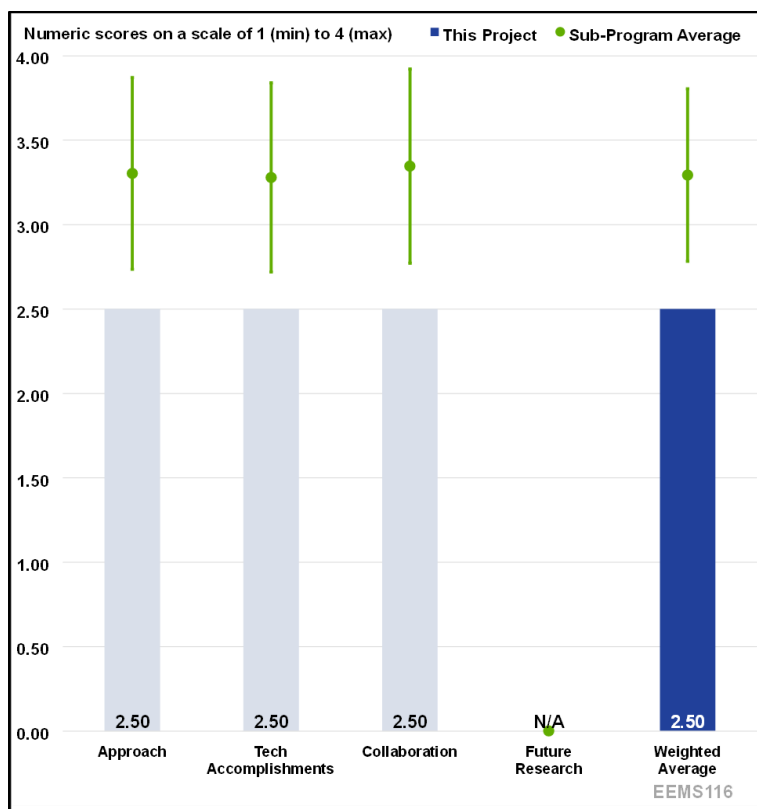


Figure 4-14 - Presentation Number: EEMS116 Presentation Title: High-Quality Perception Data Principal Investigator: Zach Asher, Western Michigan University

Presentation Number:

EEMS117

Presentation Title:

Visual-Enhanced Cooperative Traffic Operations (VECTOR) System

Principal Investigator:

Achilleas Kourtellis, University of South Florida

Presenter

Yaobang Gong, University of South Florida

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 33% of reviewers felt that the resources were sufficient, 33% of reviewers felt that the resources were insufficient, 33% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS117_Kourtellis_2025_o.pdf

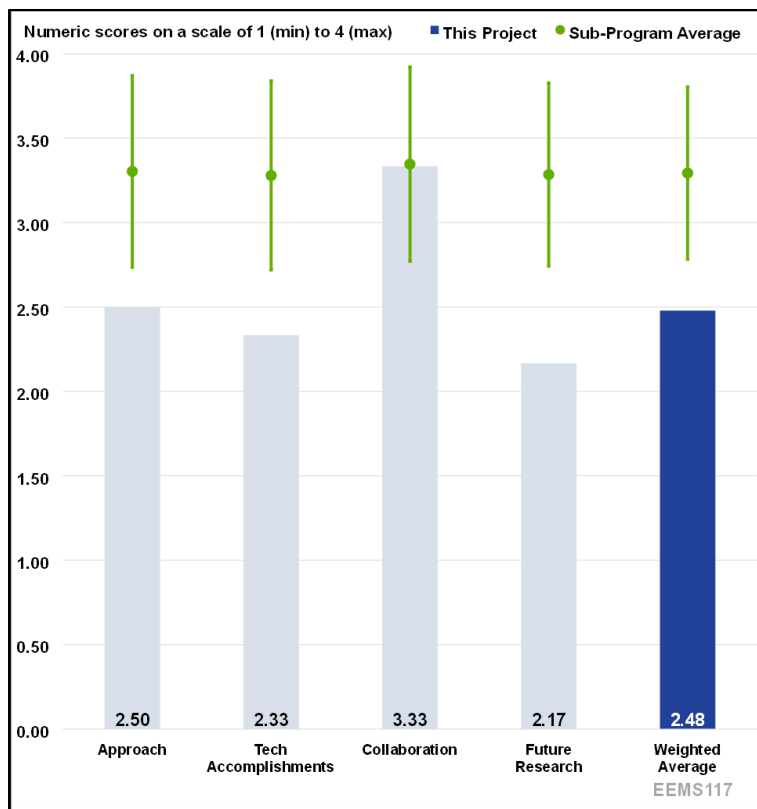


Figure 4-15 - Presentation Number: EEMS117 Presentation Title: Visual-Enhanced Cooperative Traffic Operations (VECTOR) System Principal Investigator: Achilleas Kourtellis, University of South Florida

Presentation Number:

EEMS119

Presentation Title:

Improved Mobility and Energy Savings Through Optimization of Cooperative Driving Automation (CDA) Application for Signal Controls for Arterial Mixed Traffic Scenarios

Principal Investigator:

Xiao-Yun Lu, Lawrence Berkeley National Laboratory

Presenter

Xiao-Yun Lu, Lawrence Berkeley National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS119_HaoLiu_2025_o.pdf

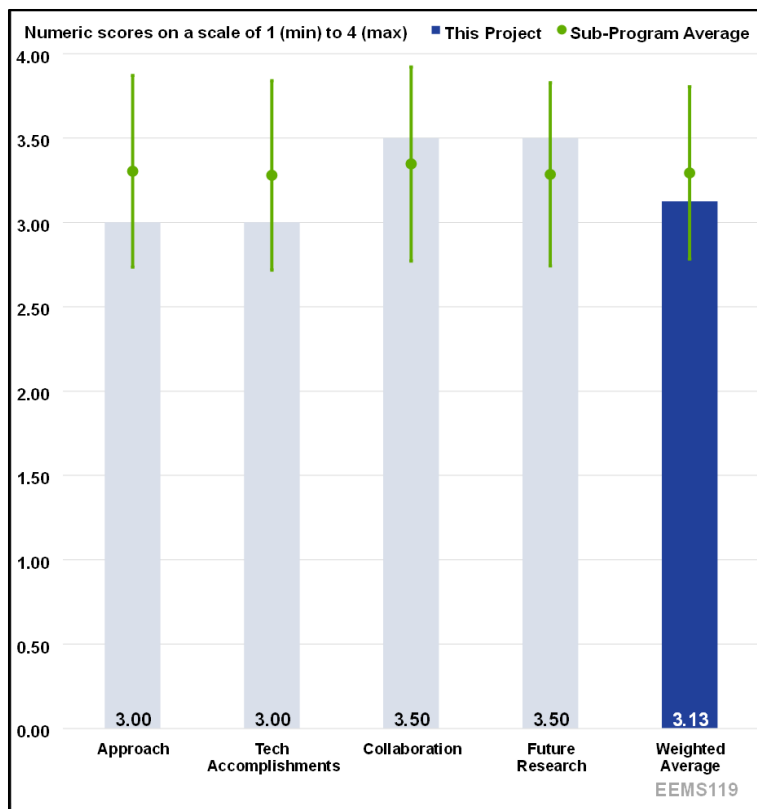


Figure 4-16 - Presentation Number: EEMS119 Presentation Title: Improved Mobility and Energy Savings Through Optimization of Cooperative Driving Automation (CDA) Application for Signal Controls for Arterial Mixed Traffic Scenarios Principal Investigator: Xiao-Yun Lu, Lawrence Berkeley National Laboratory

Presentation Number:

EEMS120

Presentation Title:

A Cooperative Driving Automation (CDA) Framework for Communications

Principal Investigator:

Adian Cook, Oak Ridge National Laboratory

Presenter

Adian Cook/Priyash Misra, Oak Ridge National Laboratory/Argonne National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS120_Cook_Misra_2025_o.pdf

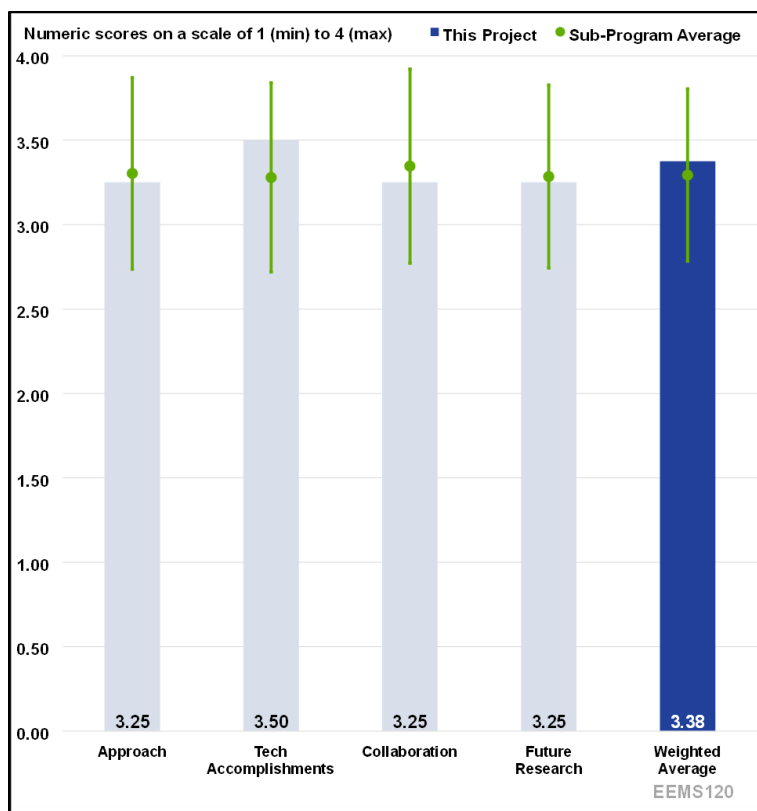


Figure 4-17 - Presentation Number: EEMS120 Presentation Title: A Cooperative Driving Automation (CDA) Framework for Communications Principal Investigator: Adian Cook, Oak Ridge National Laboratory

Presentation Number:

EEMS122

Presentation Title:

Pathways to Affordable, Convenient, Efficient Regional Mobility

Principal Investigator:

Joshua Auld, Argonne National Laboratory

Presenter

Joshua Auld, Argonne National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS122_Auld_2025_o.pdf

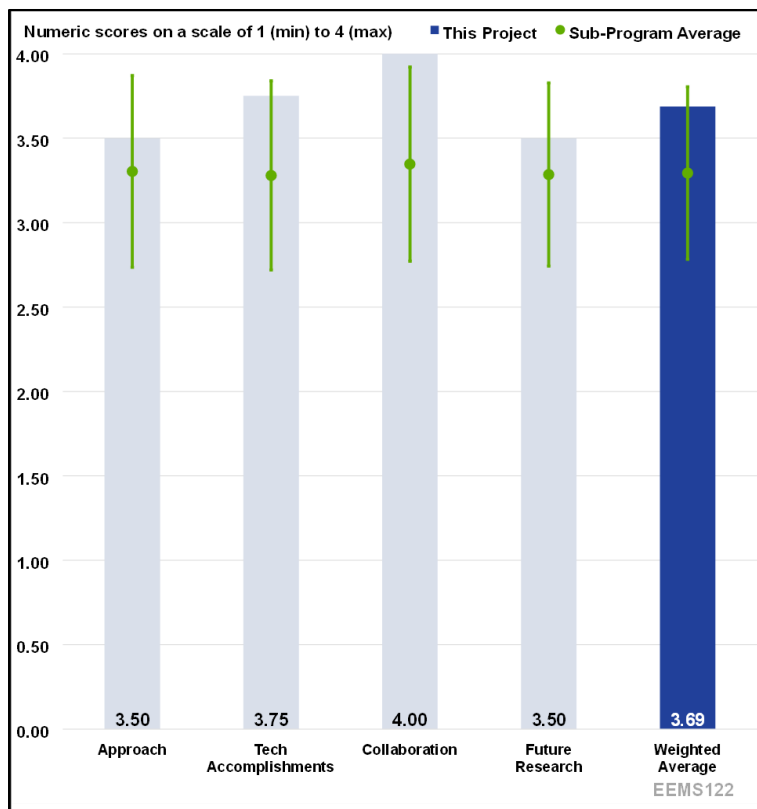


Figure 4-18 - Presentation Number: EEMS122 Presentation Title: Pathways to Affordable, Convenient, Efficient Regional Mobility Principal Investigator: Joshua Auld, Argonne National Laboratory

Presentation Number:

EEMS123

Presentation Title:

Freight in the Loop

Principal Investigator:

Kevin Stutenberg, Argonne National Laboratory

Presenter

Kevin Stutenberg, Argonne National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS123_Stutenberg_2025_o.pdf

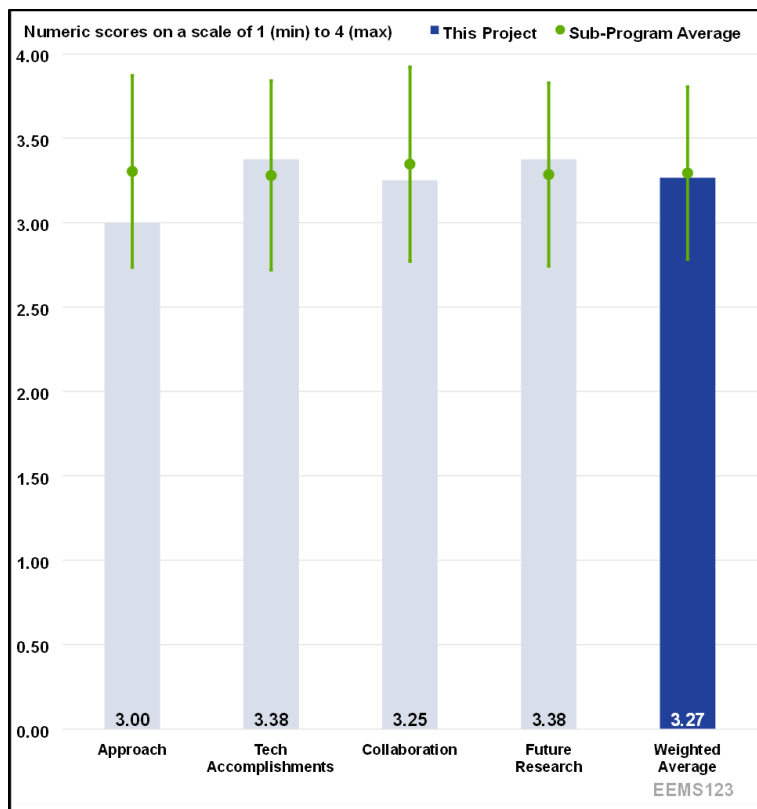


Figure 4-19 - Presentation Number: EEMS123 Presentation Title: Freight in the Loop Principal Investigator: Kevin Stutenberg, Argonne National Laboratory

Presentation Number:

EEMS124

Presentation Title:

Deployment of Real-Sim/Real-Twin Scenario Library Generation and Benchmark of Energy Centric CAV Controls

Principal Investigator:

Ross Wang, Oak Ridge National Laboratory

Presenter

Ross Wang/Max Chen, Oak Ridge National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS124_Wang_2025_o.pdf

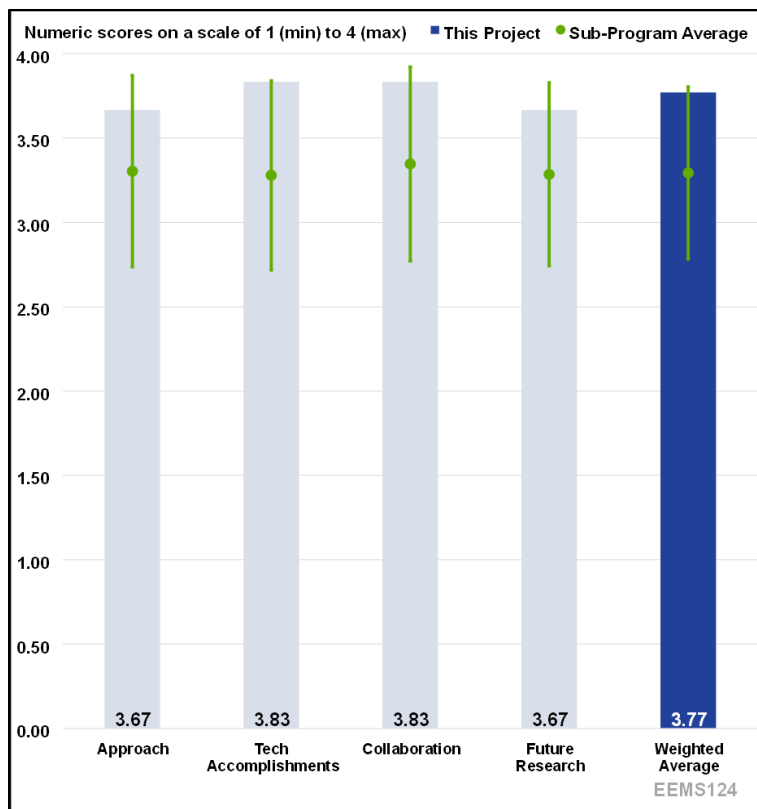


Figure 4-20 - Presentation Number: EEMS124 Presentation Title: Deployment of Real-Sim/Real-Twin Scenario Library Generation and Benchmark of Energy Centric CAV Controls Principal Investigator: Ross Wang, Oak Ridge National Laboratory

Presentation Number:

EEMS125

Presentation Title:

Energy Metrics in Traffic Signal Performance Measures

Principal Investigator:

Joseph Fish, National Renewable Energy Laboratory

Presenter

Joseph Fish, National Renewable Energy Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS125_Fish_2025_o.pdf

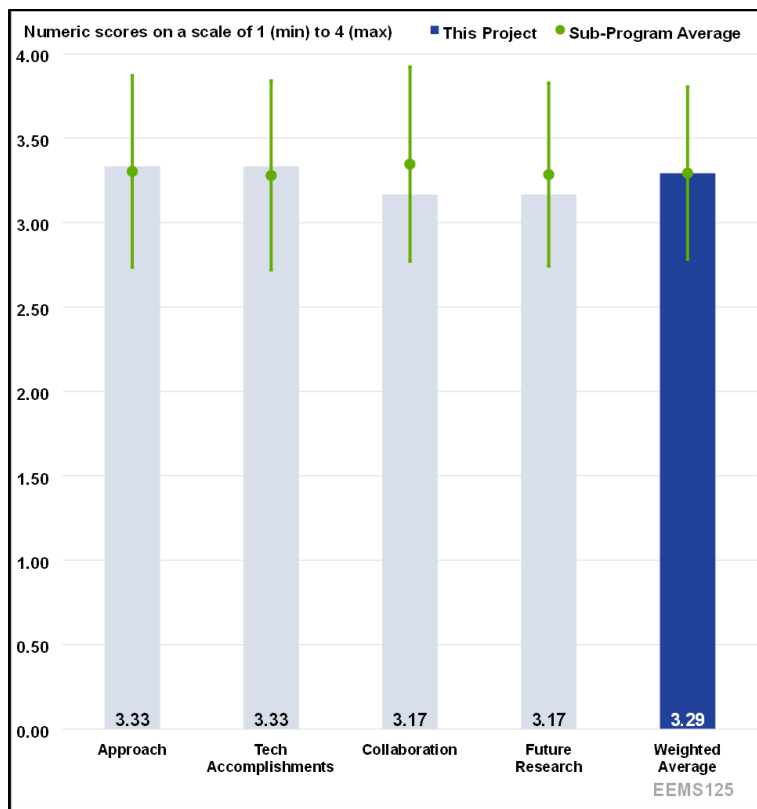


Figure 4-21 - Presentation Number: EEMS125 Presentation Title: Energy Metrics in Traffic Signal Performance Measures Principal Investigator: Joseph Fish, National Renewable Energy Laboratory

Presentation Number:

EEMS127

Presentation Title:

Deploying Autonomous, On-Demand Energy Efficient Mobility Solutions in Tulsa's Underserved Communities

Principal Investigator:

Samitha Samaranayake, Cornell University

Presenter

Samitha Samaranayake, Cornell University

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 67% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 33% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS127_Samaranayake_2025_o.pdf

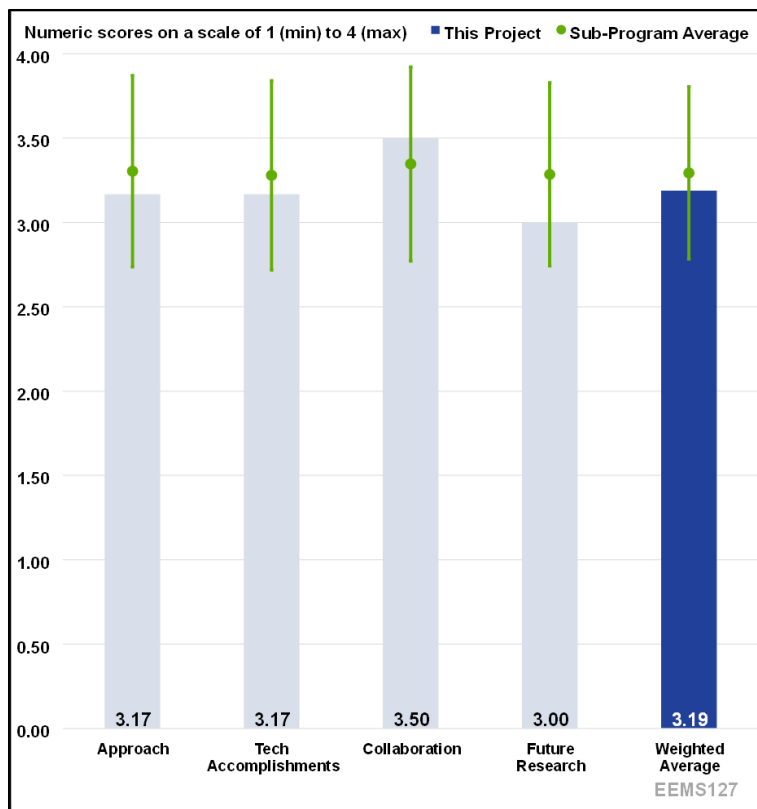


Figure 4-22 - Presentation Number: EEMS127 Presentation Title: Deploying Autonomous, On-Demand Energy Efficient Mobility Solutions in Tulsa's Underserved Communities Principal Investigator: Samitha Samaranayake, Cornell University

Presentation Number:

EEMS128

Presentation Title:

National Impacts of Community-Level Strategies to Improve Convenience of Mobility

Principal Investigator:

Chris Hoehne, National Renewable Energy Laboratory

Presenter

Chris Hoehne, National Renewable Energy Laboratory

Reviewer Sample Size

A total of one reviewer evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

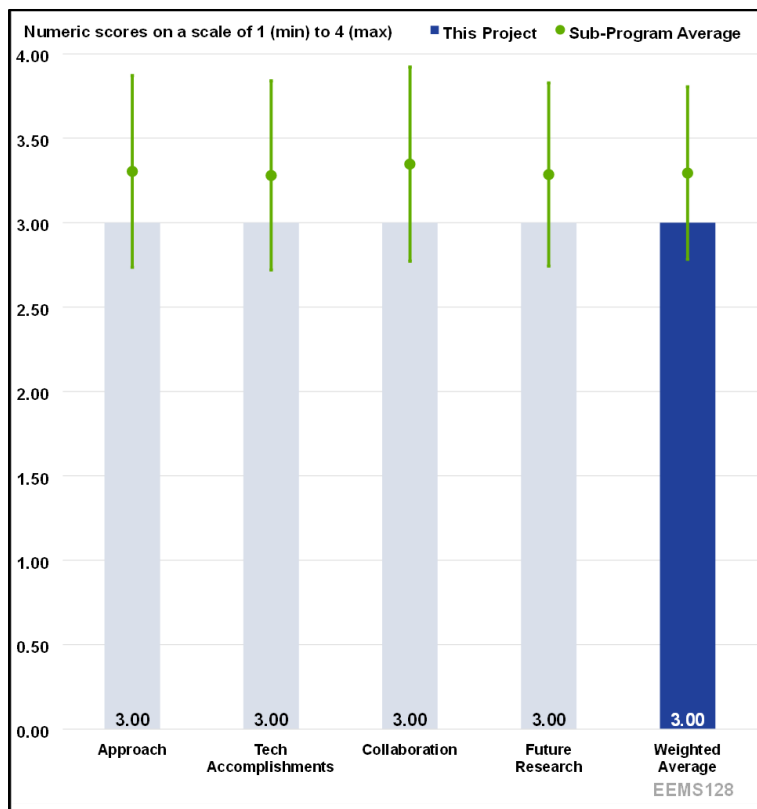


Figure 4-23 - Presentation Number: EEMS128 Presentation Title: National Impacts of Community-Level Strategies to Improve Convenience of Mobility Principal Investigator: Chris Hoehne, National Renewable Energy Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS128_Hoehne_2025_o.pdf

Presentation Number:

EEMS129

Presentation Title:

Using Artificial Intelligence to Predict Ridership and Optimize Shared Mobility

Principal Investigator:

Josh Rands, Terracity

Presenter

Josh Rands, Terracity

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 50% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 50% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS129_Rands_2025_o.pdf

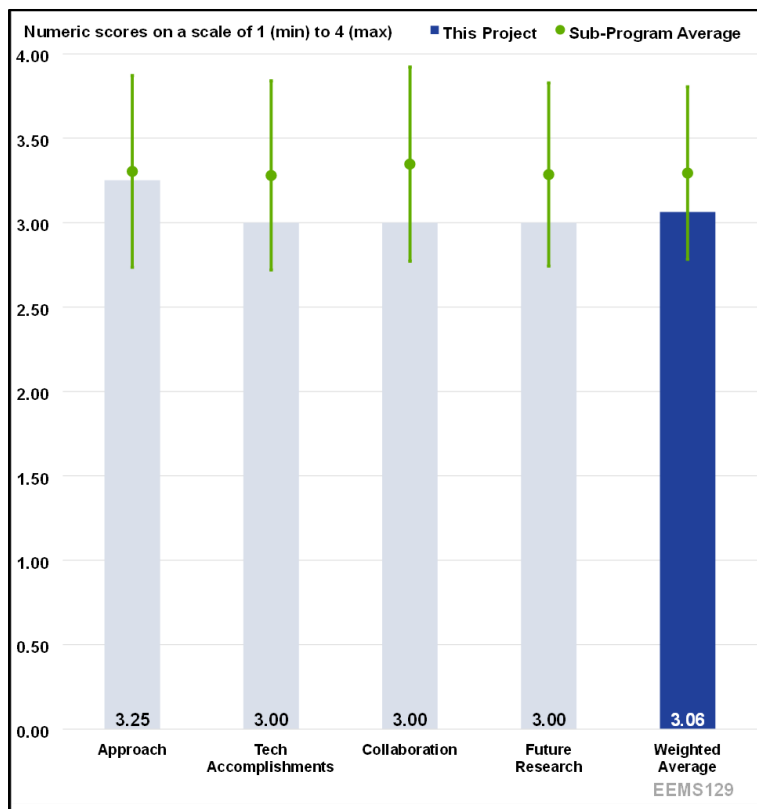


Figure 4-24 - Presentation Number: EEMS129 Presentation Title: Using Artificial Intelligence to Predict Ridership and Optimize Shared Mobility Principal Investigator: Josh Rands, Terracity

Presentation Number:

EEMS132

Presentation Title:

POLARIS – Transportation Systems and Mobility Tools Core Maintenance

Principal Investigator:

Joshua Auld, Argonne National Laboratory

Presenter

Krishna Murthy Gurumurthy,
Argonne National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS132_Auld_2025_o.pdf

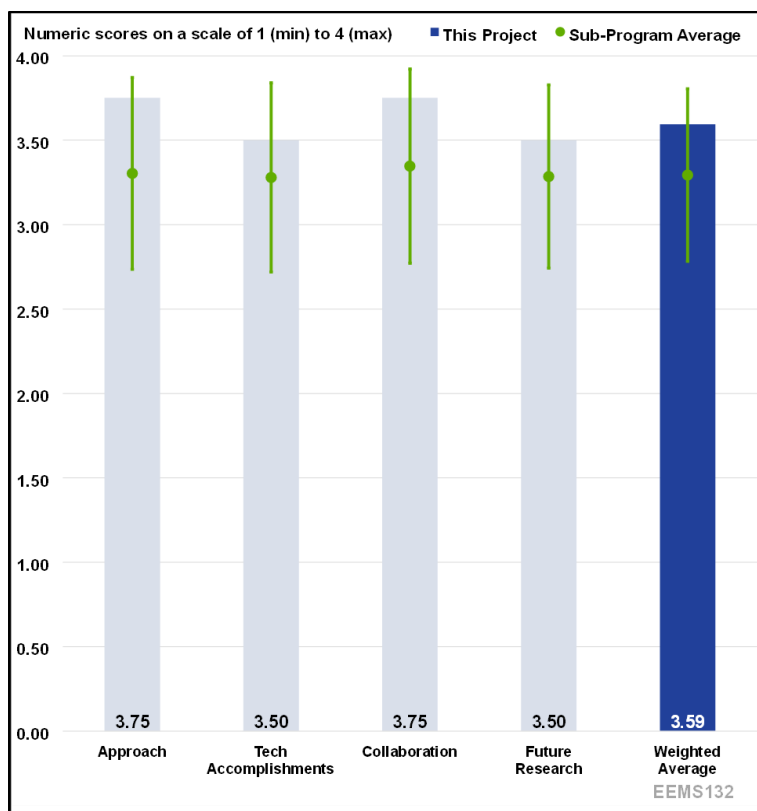


Figure 4-25 - Presentation Number: EEMS132 Presentation
Title: POLARIS – Transportation Systems and Mobility Tools
Core Maintenance Principal Investigator: Joshua Auld,
Argonne National Laboratory

Presentation Number:

EEMS133

Presentation Title:

ITES4: Integrated Transportation and Energy Cross-Sectoral System of Systems at Scale

Principal Investigator:

Joshua Auld, Argonne National Laboratory

Presenter

Joshua Auld, Argonne National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS133_Auld_2025_o.pdf

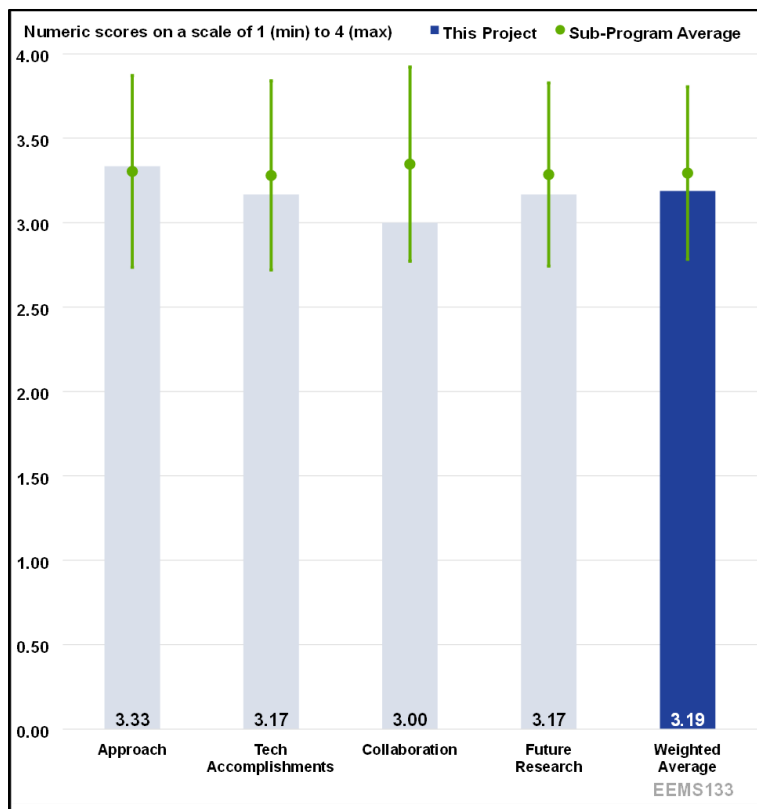


Figure 4-26 - Presentation Number: EEMS133 Presentation Title: ITES4: Integrated Transportation and Energy Cross-Sectoral System of Systems at Scale Principal Investigator: Joshua Auld, Argonne National Laboratory

Presentation Number:

EEMS134

Presentation Title:

Development of Standardized Test Procedures for CV and AV Energy Consumption and Emissions

Principal Investigator:

Michael Duoba, Argonne National Laboratory

Presenter

Michael Duoba, Argonne National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS134_Duoba_2025_o.pdf

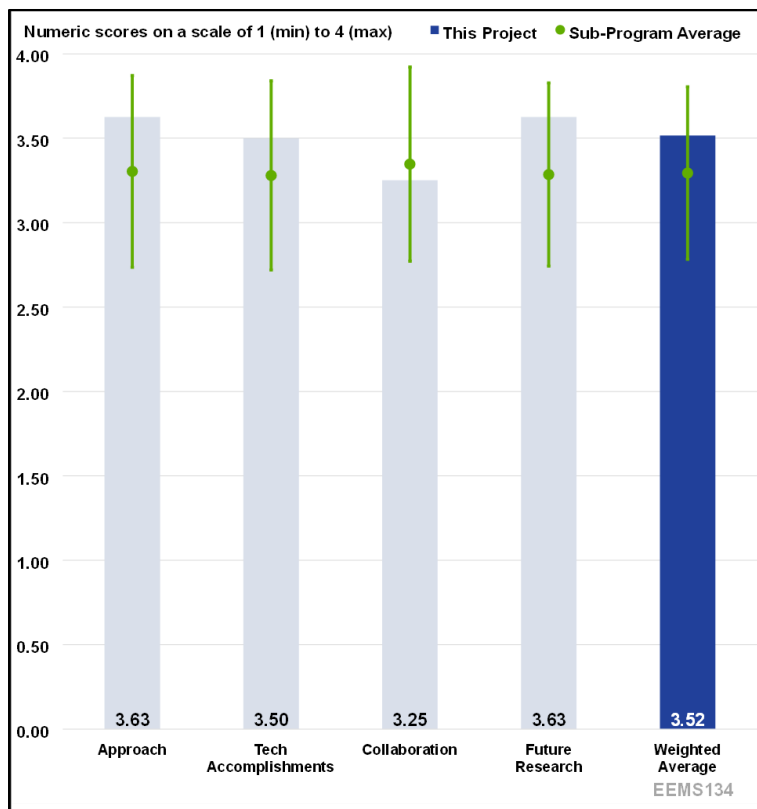


Figure 4-27 - Presentation Number: EEMS134 Presentation Title: Development of Standardized Test Procedures for CV and AV Energy Consumption and Emissions Principal Investigator: Michael Duoba, Argonne National Laboratory

Presentation Number:

EEMS135

Presentation Title:

Energy-Transit Nexus Tools for Bus Fleet Electrification (NEXTBUS)

Principal Investigator:

Jake Holden, National Renewable Energy Laboratory

Presenter

Jake Holden, National Renewable Energy Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS135_Holden_2025_o.pdf

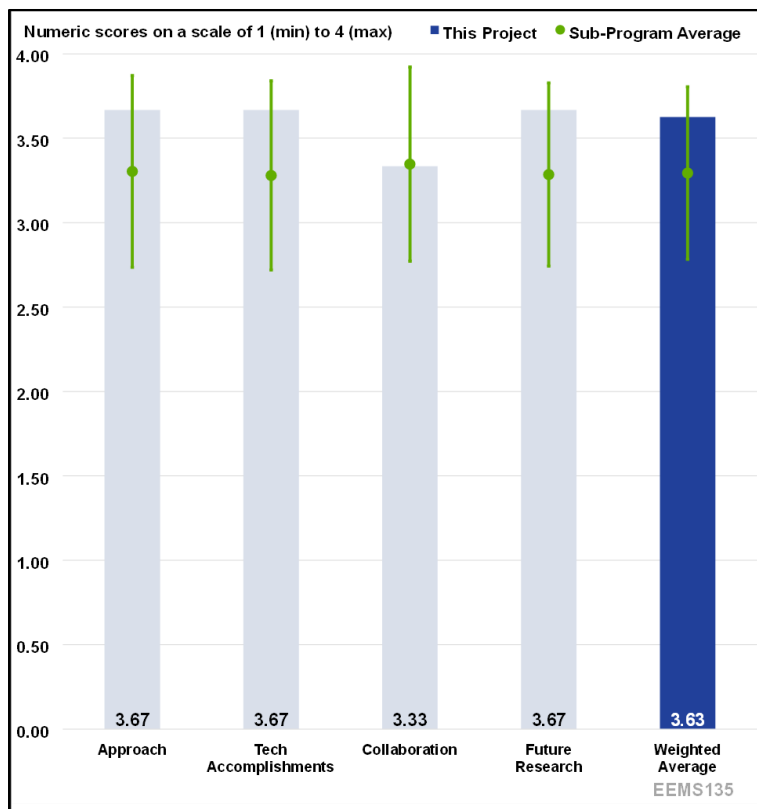


Figure 4-28 - Presentation Number: EEMS135 Presentation Title: Energy-Transit Nexus Tools for Bus Fleet Electrification (NEXTBUS) Principal Investigator: Jake Holden, National Renewable Energy Laboratory

Presentation Number:

EEMS136

Presentation Title:

A Facility Scale Automated Mobility System

Principal Investigator:

Jered Dean, LUCI Mobility

Presenter

Jered Dean, LUCI Mobility

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS136_Dean_2025_o.pdf

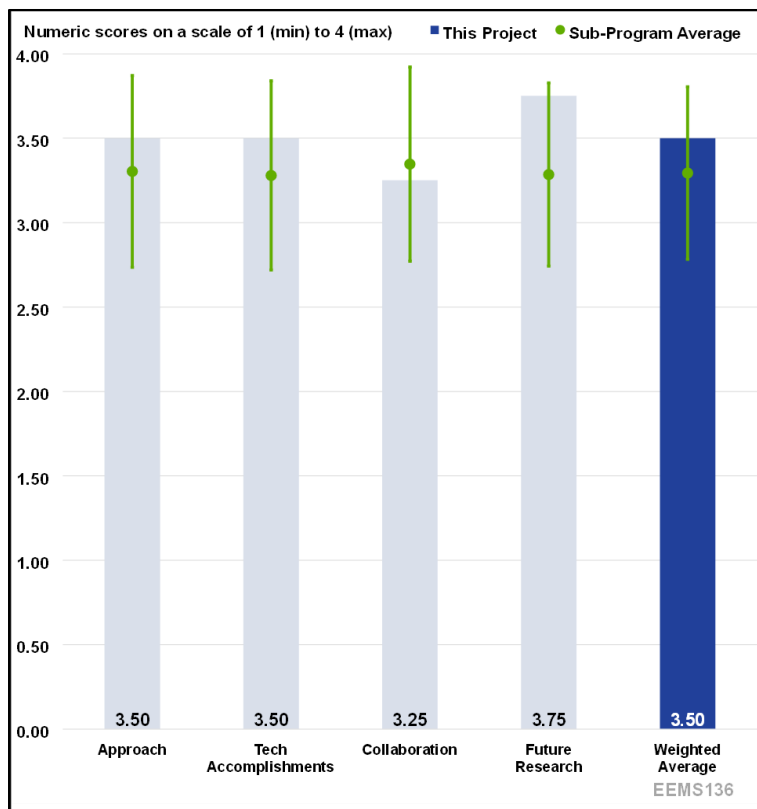


Figure 4-29 - Presentation Number: EEMS136 Presentation Title: A Facility Scale Automated Mobility System Principal Investigator: Jered Dean, LUCI Mobility

Presentation Number:

EEMS137

Presentation Title:

Increasing Mobility Energy Productivity, Operational Efficiency, with Low-Speed Automation for On-Demand Transit or Goods Movement in First-Mile/Last-Mile

Principal Investigator:

Anuja Sonalker, STEER Tech

Presenter

Anuja Sonalker, STEER Tech

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS137_Sonalker_2025_o.pdf

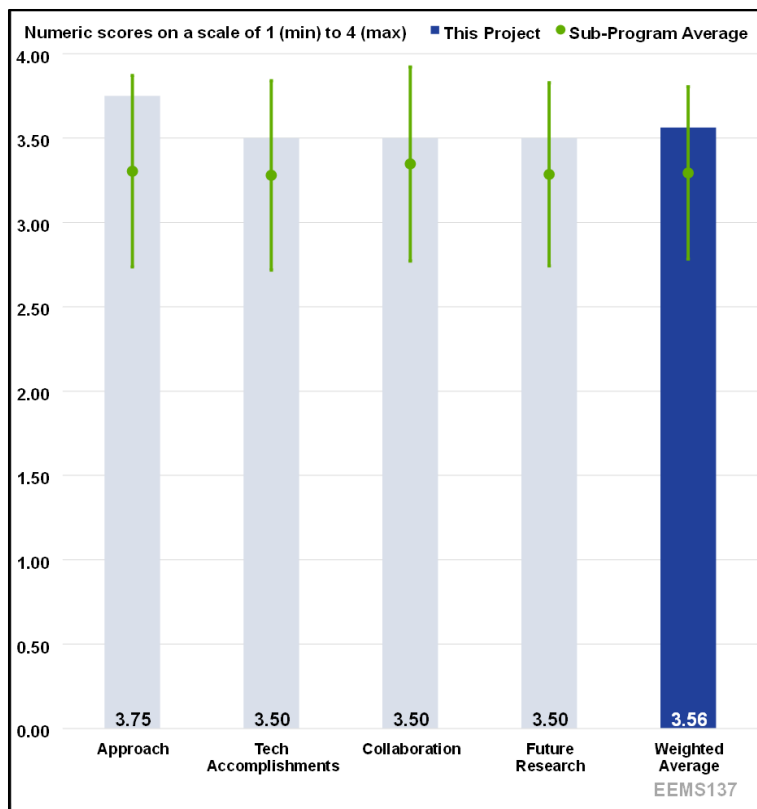


Figure 4-30 - Presentation Number: EEMS137 Presentation Title: Increasing Mobility Energy Productivity, Operational Efficiency, with Low-Speed Automation for On-Demand Transit or Goods Movement in First-Mile/Last-Mile Principal Investigator: Anuja Sonalker, STEER Tech

Presentation Number:

EEMS138

Presentation Title:

Mauka Energy FEVER: Tool Developing Heavy Duty Electric Vehicle Energy Transportation Cost Mapping

Principal Investigator:

David Hamilton, Oregon State University

Presenter

David Hamilton, Oregon State University

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS138_Hamilton_2025_o.pdf

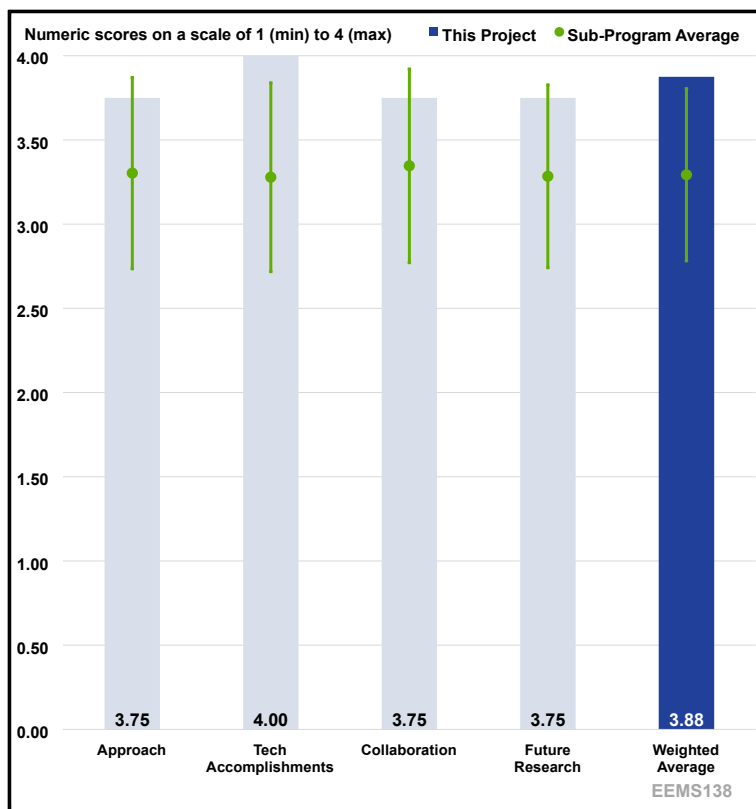


Figure 4-31 - Presentation Number: EEMS138 Presentation Title: Mauka Energy FEVER: Tool Developing Heavy Duty Electric Vehicle Energy Transportation Cost Mapping Principal Investigator: David Hamilton, Oregon State University

Presentation Number:

EEMS139

Presentation Title:

AI-Powered Autonomy-Aware Neighborhood Mobility Zones

Principal Investigator:

Philip Pugliese, Chattanooga Transit

Presenter

Philip Pugliese, Chattanooga Transit

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 75% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 25% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS139_Pugliese_2025_o.pdf

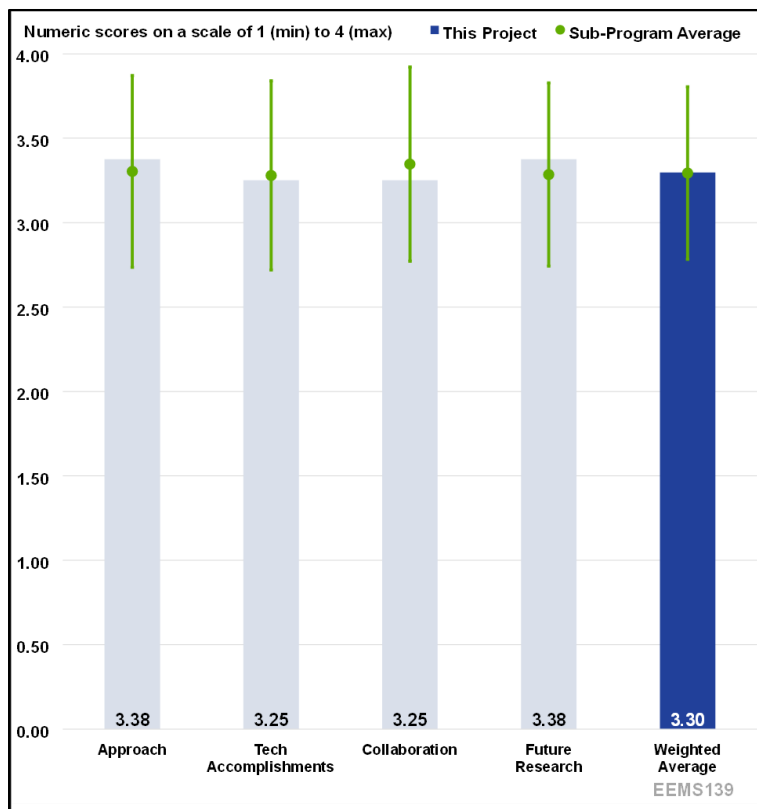


Figure 4-32 - Presentation Number: EEMS139 Presentation Title: AI-Powered Autonomy-Aware Neighborhood Mobility Zones Principal Investigator: Philip Pugliese, Chattanooga Transit

Presentation Number:

EEMS140

Presentation Title:

Multi-Level Connected and Automated Transit System (M-CATS)

Principal Investigator:

Jinhua Zhao, Massachusetts Institute of Technology

Presenter

Awad Abdelhalim, Massachusetts Institute of Technology

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS140_Zhao_2025_o.pdf

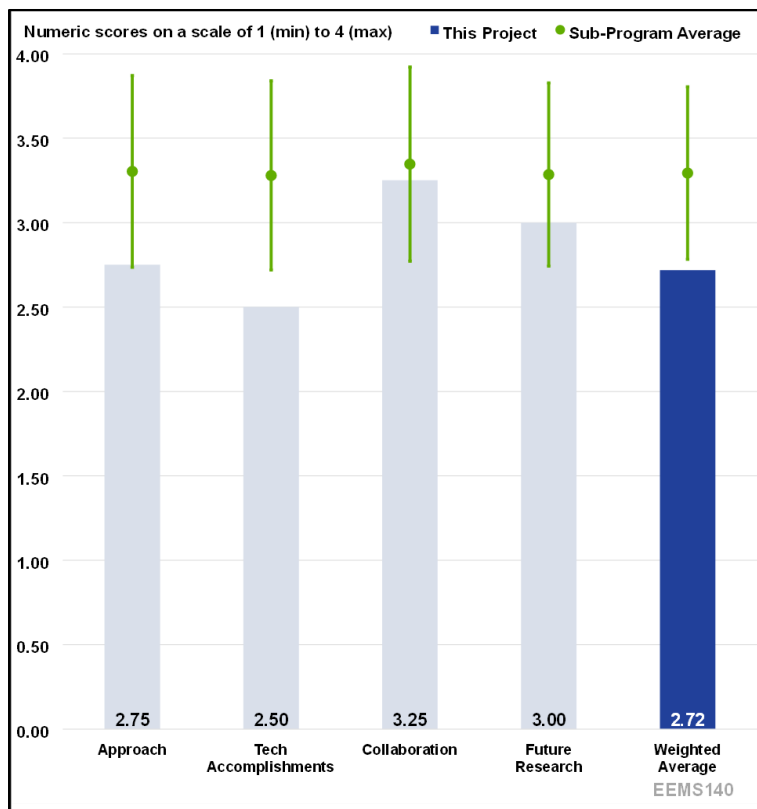


Figure 4-33 - Presentation Number: EEMS140 Presentation Title: Multi-Level Connected and Automated Transit System (M-CATS) Principal Investigator: Jinhua Zhao, Massachusetts Institute of Technology

Presentation Number:

EEMS141

Presentation Title:

Co-E3T: Energy-Efficient and Equitable Transit through User-Centric Hardware and Software Co-Development and Community Co-Design, University of Alabama Transit

Principal Investigator:

Xinwu Qian, Rice University

Presenter

Joshua Bittle/Xinwu Qian, The University of Alabama/Rice University

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS141_Qian_2025_o.pdf

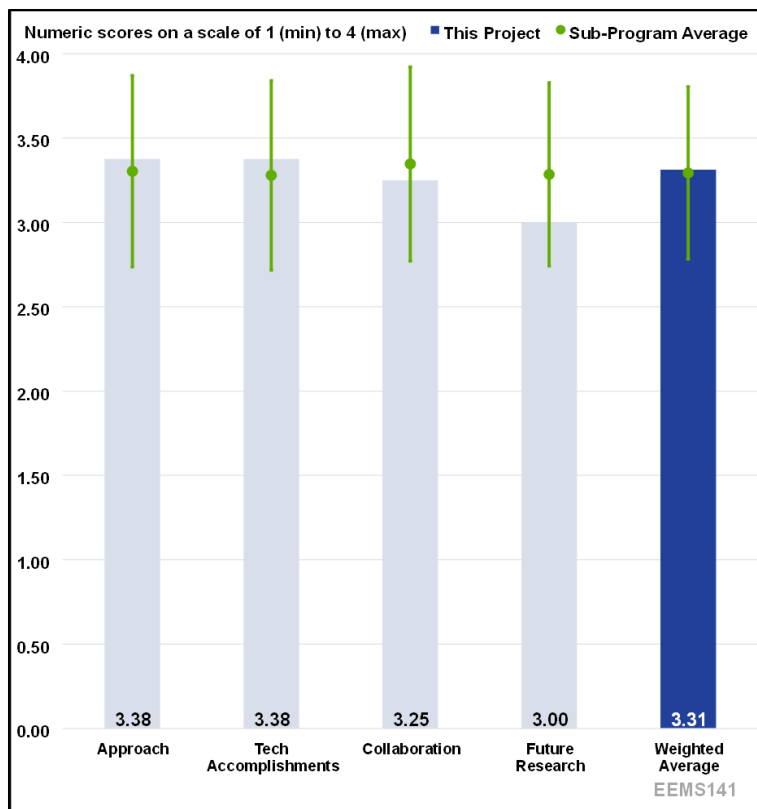


Figure 4-34 - Presentation Number: EEMS141 Presentation Title: Co-E3T: Energy-Efficient and Equitable Transit through User-Centric Hardware and Software Co-Development and Community Co-Design, University of Alabama Transit Principal Investigator: Xinwu Qian, Rice University

Presentation Number:

EEMS142

Presentation Title:

Improving Accessibility and Efficiency of Public Transportation via Optimal Integration with Shared Autonomous Electric Vehicles in Tribal Communities

Principal Investigator:

Dong Zhang, The University of Oklahoma

Presenter

Dong Zhang, The University of Oklahoma

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS142_Zhang_2025_o.p df

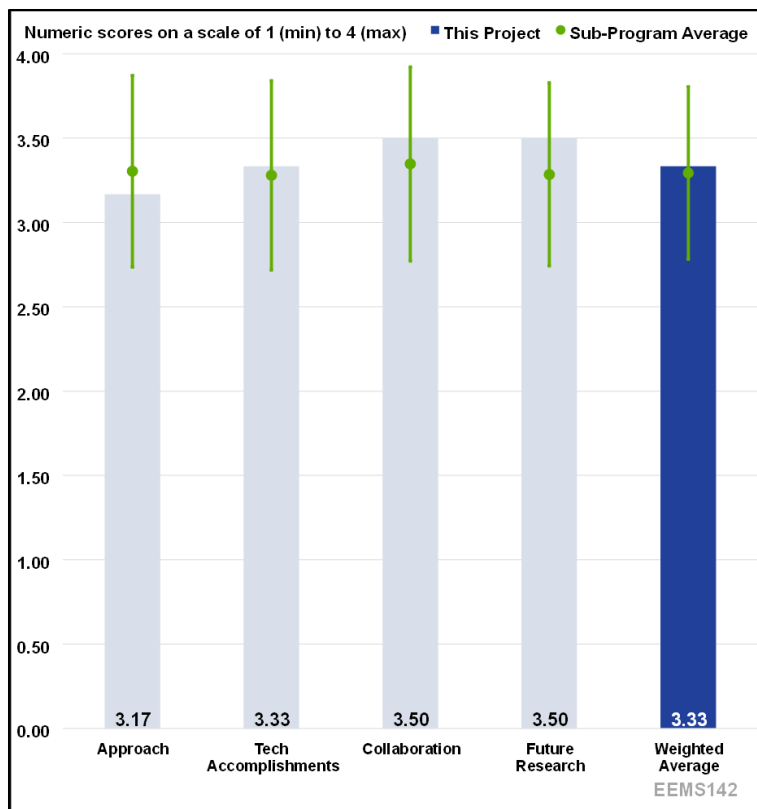


Figure 4-35 - Presentation Number: EEMS142 Presentation
Title: Improving Accessibility and Efficiency of Public Transportation via Optimal Integration with Shared Autonomous Electric Vehicles in Tribal Communities
Principal Investigator: Dong Zhang, The University of Oklahoma

Presentation Number:

EEMS143

Presentation Title:

Energy Efficient Sensing and Computing for AVs

Principal Investigator:

Robert Patton, Oak Ridge National Laboratory

Presenter

Robert Patton, Oak Ridge National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS143_Patton_2025.pdf

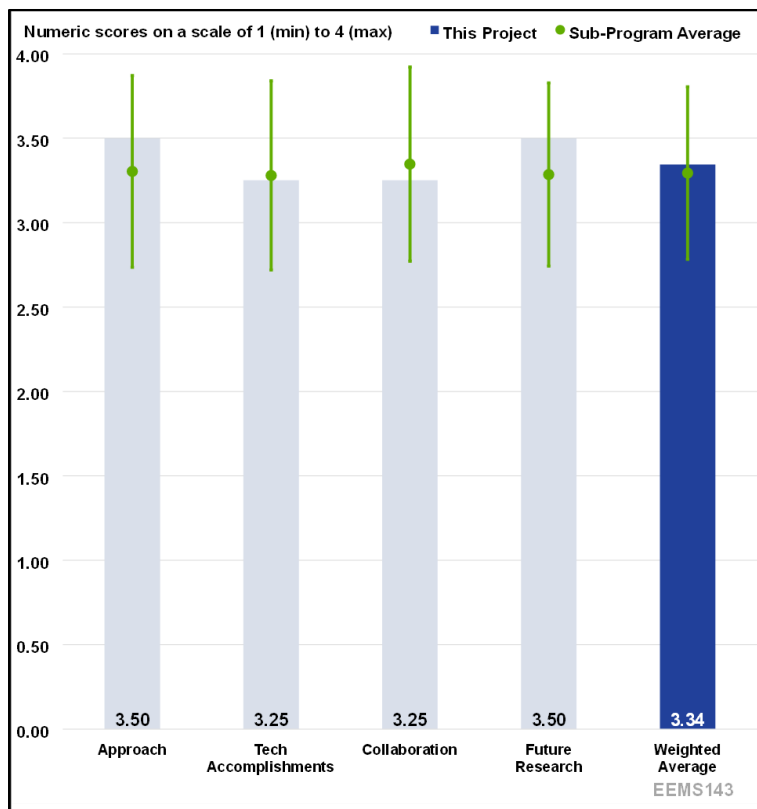


Figure 4-36 - Presentation Number: EEMS143 Presentation
Title: Energy Efficient Sensing and Computing for AVs
Principal Investigator: Robert Patton, Oak Ridge National Laboratory

Presentation Number:

EEMS144

Presentation Title:

RoadRunner Core Tools

Principal Investigator:

Dominik Karbowski, Argonne National Laboratory

Presenter

Dominik Karbowski, Argonne National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS144_Karbowski_2025_o.pdf

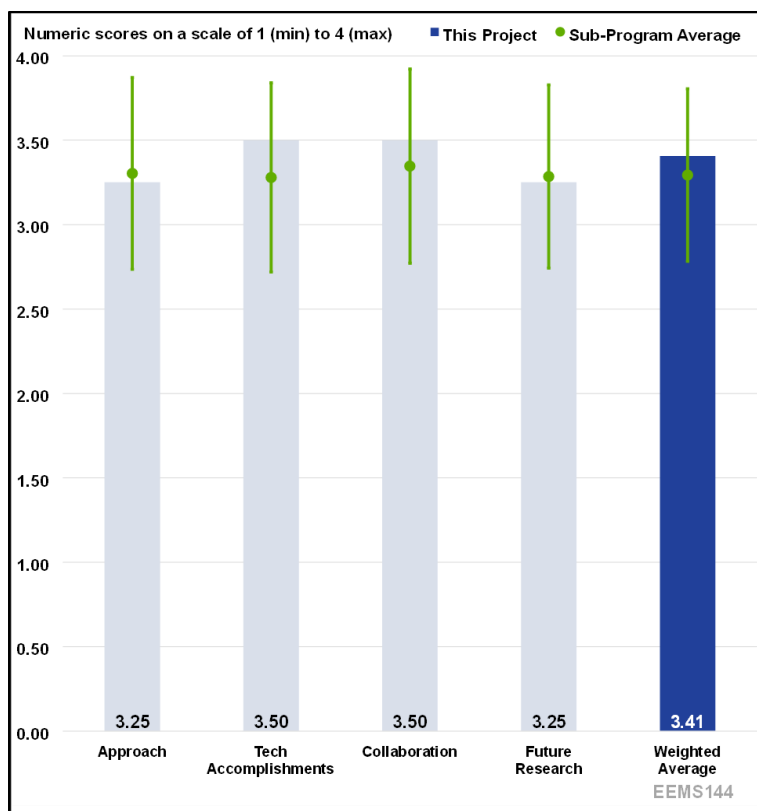


Figure 4-37 - Presentation Number: EEMS144 Presentation Title: RoadRunner Core Tools Principal Investigator: Dominik Karbowski, Argonne National Laboratory

Presentation Number:

EEMS145

Presentation Title:

BEAM CORE Core Tools

Principal Investigator:

Anna Spurlock, Lawrence Berkeley National Laboratory

Presenter

Anna Spurlock, Lawrence Berkeley National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS145_Spurlock_2025_o.pdf

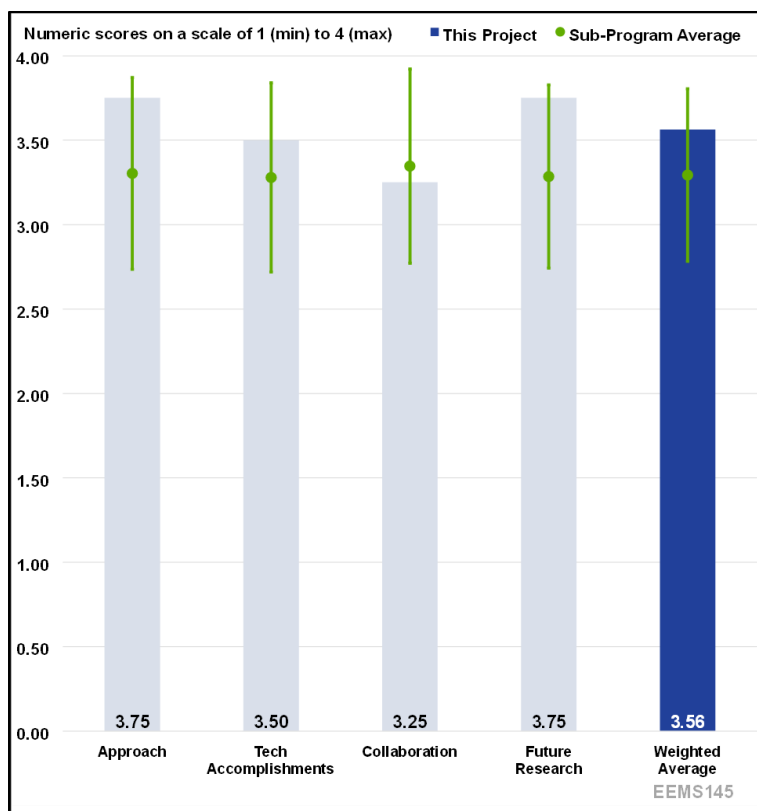


Figure 4-38 - Presentation Number: EEMS145 Presentation Title: BEAM CORE Core Tools Principal Investigator: Anna Spurlock, Lawrence Berkeley National Laboratory

Presentation Number:

EEMS146

Presentation Title:

Distributed Artificial-intelligence (AI)-based Signal Control (DASiC)

Principal Investigator:

Ross Wang, Oak Ridge National Laboratory

Presenter

Ross Wang, Oak Ridge National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS146_Wang_2025_o.pdf

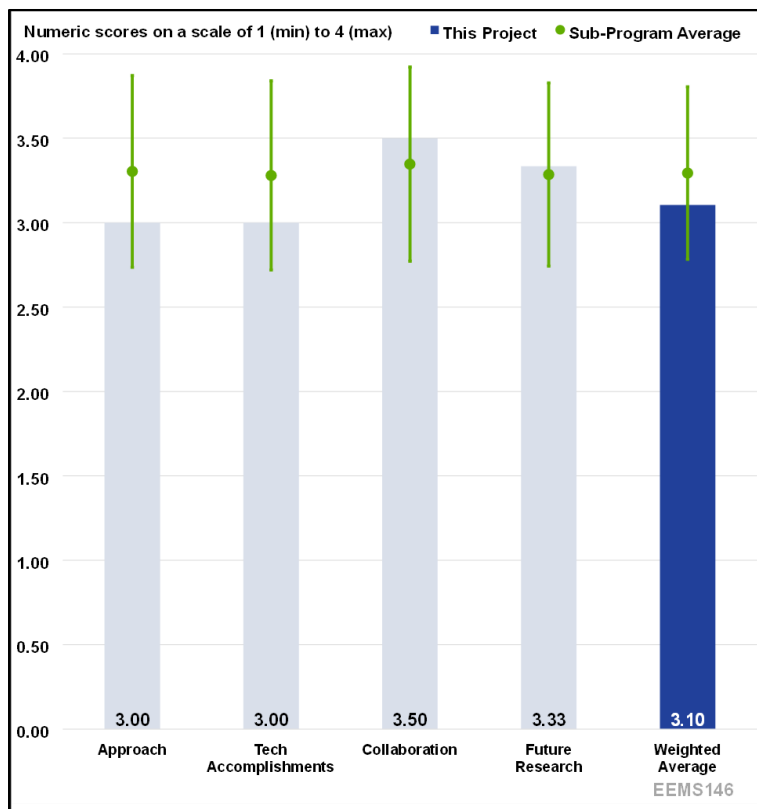


Figure 4-39 - Presentation Number: EEMS146 Presentation Title: Distributed Artificial-intelligence (AI)-based Signal Control (DASiC) Principal Investigator: Ross Wang, Oak Ridge National Laboratory

Presentation Number:

EEMS148

Presentation Title:

Blueprinting Electrified Transit System Implementation

Principal Investigator:

Noah Horesh, Colorado State University

Presenter

Noah Horesh, Colorado State University

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 50% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 50% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS148_Horesh_2025_p.pdf

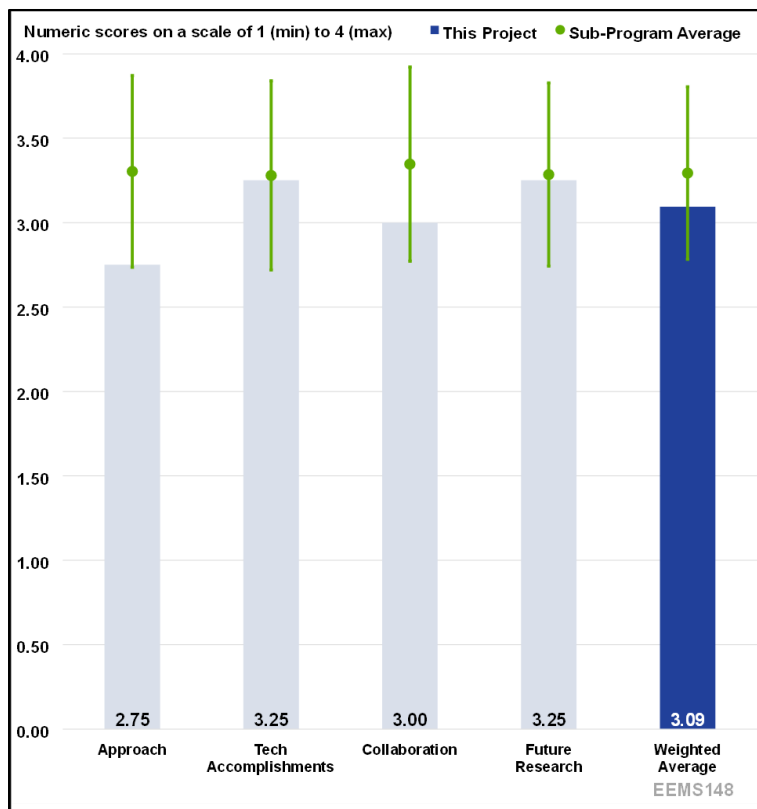


Figure 4-40 - Presentation Number: EEMS148 Presentation
Title: Blueprinting Electrified Transit System Implementation
Principal Investigator: Noah Horesh, Colorado State University

Presentation Number:
EEMS149
Presentation Title:
Next Generation Transit Mobility System
Principal Investigator:
Jason Hanlin, Flow State Analytics

Presenter
Jason Hanlin, Flow State Analytics

Reviewer Sample Size
A total of two reviewers evaluated this project.

Project Relevance and Resources
100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS149_Hanlin_2025_p.pdf

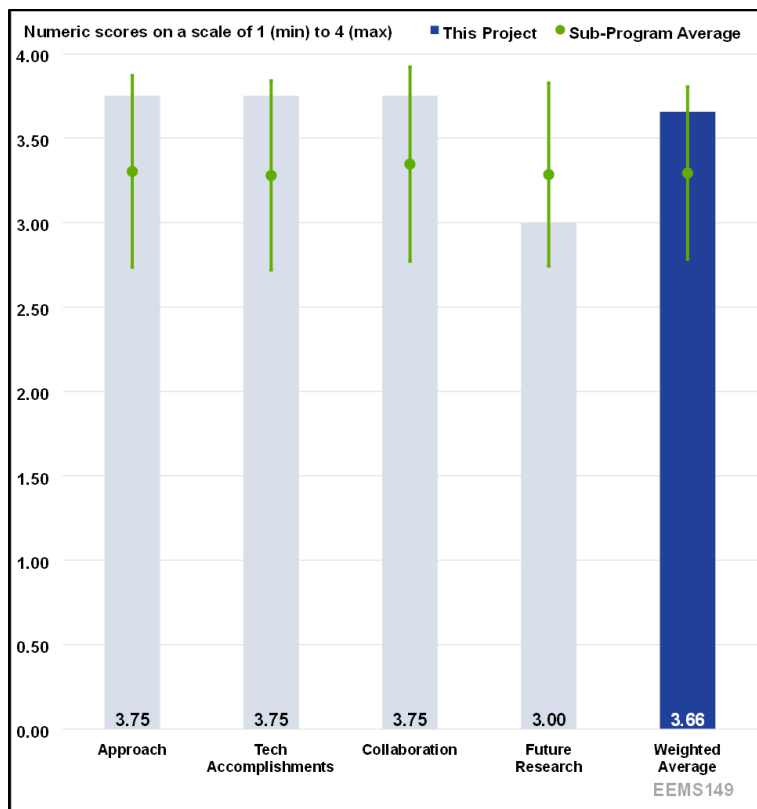


Figure 4-41 - Presentation Number: EEMS149 Presentation
Title: Next Generation Transit Mobility System Principal
Investigator: Jason Hanlin, Flow State Analytics

Presentation Number:

EEMS150

Presentation Title:

Offline Reinforcement Learning-Based Traffic Management to Improve System Wide Energy Efficiency

Principal Investigator:

Lokendra Chauhan, Qen Labs Inc.

Presenter

Lokendra Chauhan, Qen Labs Inc.

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS150_Chauhan_2025_p.pdf

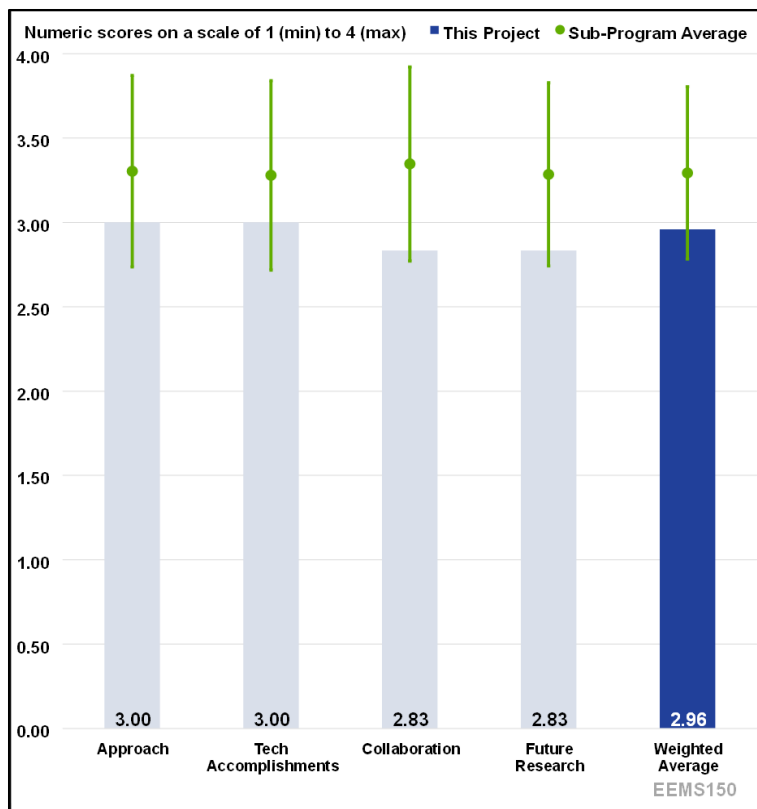


Figure 4-42 - Presentation Number: EEMS150 Presentation
Title: Offline Reinforcement Learning-Based Traffic Management to Improve System Wide Energy Efficiency
Principal Investigator: Lokendra Chauhan, Qen Labs Inc.

Presentation Number:

EEMS151

Presentation Title:

Sustainable Means of Urban Transportation for Cities

Principal Investigator:

Tony Gale, Swift Rails

Presenter

Tony Gale, Swift Rails

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/EEMS151_Gale_2025_p.pdf

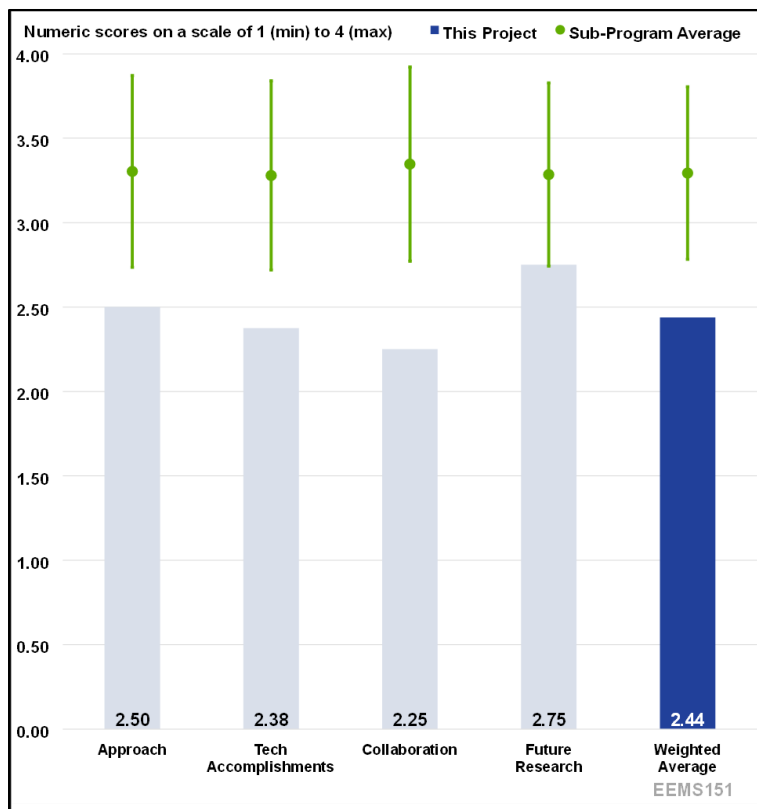


Figure 4-43 - Presentation Number: EEMS151 Presentation Title: Sustainable Means of Urban Transportation for Cities Principal Investigator: Tony Gale, Swift Rails

5. Materials Technology

The Vehicle Technologies Office (VTO) funds research and development (R&D) of engines, batteries, power electronics, motors, materials, and transportation systems. VTO leverages the unique capabilities and world-class expertise of the national laboratory system to innovate new vehicle technologies. VTO is uniquely positioned to accelerate innovative transportation technologies due to strategic public-private research partnerships with industry (e.g., the U.S. DRIVE Partnership, the 21st Century Truck Partnership) that leverage relevant expertise. These partnerships prevent duplication of effort, focus U.S. Department of Energy (DOE) research on critical R&D barriers, and accelerate progress.

The Materials Technology subprogram plays a significant role in increasing the efficiency of all vehicles including electric vehicles (EVs) through weight reduction, more efficient engines, and enabling faster charging and sensing technologies. The materials research also contributes to the goals of reducing emissions and improving recyclability, helping reduce the overall embodied energy of vehicles.

Lightweight Materials activities support national laboratories, academia, and industry-led research in advanced high-strength steels, aluminum (Al) alloys, magnesium (Mg) alloys, carbon fiber (CF) composites, and multi-material systems. This includes projects addressing materials and manufacturing challenges spanning from atomic structure to assembly, with an emphasis on establishing and validating predictive modeling tools for materials applicable to light-duty and heavy-duty vehicles.

Lightweight Materials activities support these VTO program level goals:

- Enable a 25% weight reduction for light-duty vehicles including body, chassis, and interior as compared to a 2020 baseline by 2030, without significantly increasing costs; and
- Develop lightweight alloys with improved strength and fatigue performance for cast and additive manufacturing (AM) methods resulting in a 25% weight reduction in powertrain and suspension components by 2030.

Powertrain Materials activities similarly support research to develop higher performance materials needed by hybrids and EVs to increase efficiency and decrease manufacturing cost, helping transition to all electric light duty vehicles by 2035. Weight reduction, engine efficiency and electric powertrain system efficiency improvements for heavy-, medium-, and light-duty vehicles are being advanced through this work, addressing challenging components such as high temperature engine components, inverters, motors, and geartrains. Powertrain Materials objectives include efforts to:

- Improve electric drive motor peak efficiency by more than 2% while maintaining durability and power density, with emphasis on the needs of commercial medium- and heavy-duty electric and hybrid vehicles due to the severe materials

challenges related to power demands and service lifetimes of up to 1 million miles;

- Develop new materials to facilitate a reduction of demand for anticipated future critical materials, such as permanent magnets and copper;
- Reduce powertrain costs (less than or equal to \$6/kW) and total vehicle operating costs; and
- Develop new materials to increase the efficiency and durability of internal combustion engines.

Current priority focus areas for the subprogram include: (1) lightweight alloys with high fatigue strength for suspension components, (2) high-temperature materials for engines and lighter brakes, (3) predictive models for powertrain materials, and (4) integrated computational materials engineering (ICME) tools that use high-performance computing capabilities, multi-length scale (atoms to components) material models, and boundary layer resolved thermo-kinetic models.

Project Feedback

In this merit review activity, each reviewer was asked to respond to a series of questions, involving multiple-choice responses, expository responses where text comments were requested, and numeric score responses (on a scale of 1.0 to 4.0). In the pages that follow, the multiple choice and numeric score questions will be presented in graph form for each project. A table presenting the average numeric score for each question for each project is presented below.

Table 5-1 – Project Feedback

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
MAT159	Cost Effective Lightweight Alloys for Electric Vehicle Propulsion: Fundamental Fatigue and Creep in Advanced Lightweight Alloys	Amit Shyam (Oak Ridge National Laboratory)	5-15	3.33	3.33	2.50	2.67	3.15
MAT174	Carbon-Fiber Technology Facility (CFTF)†	Daniel Webb (Oak Ridge National Laboratory)	5-16	3.50	3.75	3.00	3.75	3.59
MAT198	Development of Tailored Fiber Placement, Multi-Functional, High-Performance Composite Material Systems for High Volume Manufacture of Structural Battery Enclosure	Venkat Aitharaju (General Motors Company)	5-17	3.38	3.63	3.63	3.38	3.53
MAT204	New Frontier in Polymer Matrix Composites via Tailored Vitrimer Chemistry†	Tomonori Saito (Oak Ridge National Laboratory)	5-18	3.50	3.50	3.67	2.83	3.44

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
MAT211	Sustainable Lightweight Intelligent Composites (SLIC) for Next-Generation Vehicles†	Masato Mizuta (Newport Sensors, Inc.)	5-19	3.17	3.17	3.17	3.33	3.19
MAT212	Integrated Self-Sufficient Structurally Integrated Multifunctional Sensors for Autonomous Vehicles†	Serena Wang (Acellent Technologies, Inc.)	5-20	3.67	3.50	3.17	3.17	3.46
MAT236	Advanced Characterization and Computational Methods	Thomas Watkins (Oak Ridge National Laboratory)	5-21	3.50	3.67	3.50	3.33	3.56
MAT237	Materials, Lubricants, and Cooling for Heavy-Duty Electric Vehicles	Jun Qu (Oak Ridge National Laboratory)	5-22	3.33	3.67	3.67	3.67	3.58
MAT241	Advanced Processing and Additive Manufacturing for EV Propulsion: Advanced Ceramics and Processing for Wireless Charging Systems	Beth Armstrong (Oak Ridge National Laboratory)	5-23	3.67	3.67	3.83	3.50	3.67

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
MAT242	Advanced Processing and Additive Manufacturing for EV Propulsion: Novel Ultra High Conductivity Composites for EVs	Tolga Aytug (Oak Ridge National Laboratory)	5-24	3.83	3.50	3.83	3.83	3.67
MAT265	Low-Cost Multifunctional Composites from Recycled Materials for Lighter and Smarter Vehicles	Xiaodong Li (University of Virginia)	5-25	3.33	3.50	3.33	3.17	3.40
MAT266	Development and Manufacturing of Multifunctional Energy Storage Composites (MESC) for Automotive Vehicles	Amrita Kumar (Acellent Technologies, Inc.)	5-26	2.88	3.00	3.25	3.00	3.00
MAT267	Multiscale Bioinspired Enhancement of Natural-Fiber Composites for Green Vehicles†	Lorenzo Mencatteli (Helicoid Industries, Inc.)	5-27	3.25	3.00	3.25	3.00	3.09
MAT280	Materials and Manufacturing Innovation for Sustainable Automotive Composites: Thrust 1 – Innovative Low-Cost Carbon Fiber and Alternative Fiber Technologies (Overview)	Amit Naskar (Oak Ridge National Laboratory)	5-28	3.63	3.25	3.50	3.63	3.42

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
MAT281	Materials and Manufacturing Innovation for Sustainable Automotive Composites: Thrust 2 – Multi-Functional Materials and Structures (Overview)	Christopher Bowland (Oak Ridge National Laboratory)	5-29	3.25	3.25	3.75	3.25	3.31
MAT282	Materials and Manufacturing Innovation for Sustainable Automotive Composites: Thrust 3 – Circularity and Sustainability of Polymer Composites (Overview)	Nicholas Rorrer (National Renewable Energy Laboratory)	5-30	3.50	3.75	3.00	3.50	3.56
MAT283	Materials and Manufacturing Innovation for Sustainable Automotive Composites: Thrust 4 – Polymeric Materials and Their Composites in Additive Manufacturing (Overview)	Logan Kearney (Oak Ridge National Laboratory)	5-31	3.13	3.25	3.50	3.13	3.23
MAT286	CCP 2.0, Task 2.1 – Spatio-Temporal Damage Characterization of Multifunctional Composites	Christopher Bowland (Oak Ridge National Laboratory)	5-32	2.67	2.83	2.83	3.00	2.81

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
MAT287	CCP 2.0, Task 2.2 – Advanced Discontinuous-Continuous Carbon Composites with Embedded Electronics in High-Rate Processes	Uday Vaidya (The University of Tennessee, Knoxville)	5-33	3.50	3.33	3.33	3.17	3.35
MAT288	CCP 2.0, Task 2.3 – Lightweight Multi-Functional Materials for Self-Sensing, Powering and Actuation	Seokpum Kim (Oak Ridge National Laboratory)	5-34	3.13	3.38	2.75	3.00	3.19
MAT289	CCP 2.0, Task 2.4 – Data-driven Lightweight Multi-Functional Composite Design for Improved Thermal Management and Energy Harvesting	Sumit Gupta (Oak Ridge National Laboratory)	5-35	2.83	3.00	3.17	2.83	2.96
MAT290	CCP 2.0, Task 1.2 – Next Generation Carbon Fibers for Vehicles from Waste Polyolefins via Selective C-H Functionalization	Logan Kearney (Oak Ridge National Laboratory)	5-36	3.50	3.50	2.38	2.88	3.28
MAT291	CCP 2.0, Task 1.4 – High-Molecular Weight Polyethylene Fibers for Self-Reinforced Composites	Amit Naskar (Oak Ridge National Laboratory)	5-37	3.50	3.50	3.50	3.50	3.50

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
MAT292	CCP 2.0, Task 1.3 – A Viable Route from Acrylic Textiles to Low-Cost Carbon Fiber	Felix Paulauskas (Oak Ridge National Laboratory)	5-38	3.25	3.38	2.88	3.25	3.27
MAT293	CCP 2.0, Task 1.5 – High-performance Polymer-Fiber-Reinforced Polymer Composites (PFRPs)	Yao Qiao (Pacific Northwest National Laboratory)	5-39	3.33	3.33	2.83	3.00	3.23
MAT294	Bulk-Scale Ultra-Conductors via Low-C Manufacturing Pathways	Keerti Kappagantula (Pacific Northwest National Laboratory)	5-40	3.50	3.50	3.67	3.33	3.50
MAT295	High Resistivity Fe6Si-X Rolled Steels for Soft Magnetic Cores	Govindarajan Muralidharan (Oak Ridge National Laboratory)	5-41	3.67	3.33	3.67	3.33	3.46
MAT296	Near Net Shape High Strength SMCs for Axial Flux Motors	Vineet V. Joshi (Pacific Northwest National Laboratory)	5-42	3.50	3.25	3.50	3.25	3.34
MAT297	Opportunities to Support Integration of Non-Electric Propulsion Systems	Rishi Pillai (Oak Ridge National Laboratory)	5-43	3.67	3.50	3.17	3.33	3.48
MAT298	LMCP 2.0 Task 1A – Flaw Mitigation and Repair in Ultra Large Castings Composed of High Secondary Alloy Content	Saumyadeep Jana (Pacific Northwest National Laboratory)	5-44	3.25	3.13	3.13	3.13	3.16

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
MAT299	LMCP 2.0 Task 1B – Post Processing of Castings for Energy Absorption in Crash	Piyush Upadhayay (Pacific Northwest National Laboratory)	5-45	3.00	3.00	3.00	2.50	2.94
MAT300	LMCP 2.0 Task 1C – Enhancing Mechanical Performance of HPDC Al Castings by In-Situ Ultrasonic Processing	Aashish Rohatgi (Pacific Northwest National Laboratory)	5-46	3.75	3.50	3.13	3.63	3.53
MAT301	LMCP 2.0 Task 1D-24 – Mechanical Behavior of HPDC Al Alloys with High Secondary Content	Sumit Bahl (Oak Ridge National Laboratory)	5-47	3.50	3.67	3.83	3.67	3.65
MAT302	LMCP 2.0 Task 2A-24 – Design of Sustainable Lightweight Cast Alloys for HPDC	Amit Shyam (Oak Ridge National Laboratory)	5-48	3.00	3.00	3.00	3.00	3.00
MAT303	LMCP 2.0 Task 2B-24 – Optimization of T5 Heat Treatments in Diecast Alloys	Dongwon Shin (Oak Ridge National Laboratory)	5-49	3.38	3.38	3.38	3.38	3.38
MAT304	LMCP 2.0 Task 2C-24 – Fundamentals of Solidification for LW Alloys with High Secondary Content	Ying Yang (Oak Ridge National Laboratory)	5-50	2.75	3.50	2.25	3.00	3.09

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
MAT305	LMCP 2.0 Task 2E-24 – Upcycling of Secondary LW Alloys Using Additive Manufacturing	Jovid Rakhmonov (Oak Ridge National Laboratory)	5-51	3.50	3.75	3.25	3.50	3.59
MAT306	LMCP 2.0 Task 3A-A – Thermo-Mechanical Processing Techniques to Enable a Versatile and Recyclable 6xxx Unialloy and LMCP 2.0 Task 3A-B – Formability and Edge Stretchability of Recyclable 6xxx Al Alloys	Mert Efe (Pacific Northwest National Laboratory)	5-52	3.25	3.63	3.50	3.38	3.48
MAT308	LMCP 2.0 Task 3B – Solid Phase Processing of Mg Alloys for Improved Performance	Mageshwari Komarasamy (Pacific Northwest National Laboratory)	5-53	3.00	3.50	3.17	2.83	3.25
MAT309	LMCP 2.0 Task 4A-24 – Scalable Surface Alloyed Coatings on Magnesium High Pressure Die Casting Parts	Vineet V. Joshi (Pacific Northwest National Laboratory)	5-54	3.17	3.33	3.17	3.00	3.23
MAT310	Zero-Emission Natural Fiber Composites (ZENC) for Fire-Detecting Fireproof EV Battery Enclosure	Maria Feng (Columbia University)	5-55	2.75	3.13	3.00	2.88	2.98

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
MAT311	Transforming Carbon Fiber-Reinforced Polymer Wastes into Recyclable Structural Automotive Components	Jinwen Zhang (Washington State University)	5-56	3.63	3.38	3.38	3.50	3.45
MAT312	Cost-effective Circular Manufacturing of Lightweight Vehicle Shells and Battery Casing by Recyclable-by-Design Polymer Composites	Chen Wang (University of Utah)	5-57	3.13	3.13	3.50	3.13	3.17
MAT313	Sustainable Circular Manufacturing of Automotive Composites	Jay Keasling (University of California at Berkeley)	5-58	3.33	3.33	3.17	3.50	3.33
MAT314	CCP 2.0, Task 3.1 – Waste Plastics to High-Value Polymers	Daniel Merkel (Pacific Northwest National Laboratory)	5-59	3.25	3.25	2.50	3.25	3.16
MAT315	CCP 2.0, Task 3.2 – Circular Economy for Unwanted Shredded Automotive Waste (CE-SAW)	Caitlyn Clarkson (Oak Ridge National Laboratory)	5-60	3.63	3.38	3.38	3.00	3.39

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
MAT316	CCP 2.0, Task 3.3 – Materials and Manufacturing Innovation for Sustainable Automotive Composites – Bioderivable and Recyclable Composites	Nicholas Rorrer (National Renewable Energy Laboratory)	5-61	3.75	3.75	3.75	3.50	3.72
MAT317	CCP 2.0, Task 3.4 – High Throughput Recycling of Long CF from Cured Thermoset Composites	Wenbin Kuang (Pacific Northwest National Laboratory)	5-62	3.63	3.50	3.25	3.75	3.53
MAT318	CCP 2.0, Task 4.3 – Recyclable Cellulose Fiber Reinforced Vitrimers Composites	Amit Naskar (Oak Ridge National Laboratory)	5-63	4.00	4.00	4.00	3.50	3.94
MAT319	CCP 2.0, Task 4.1 – Precise High-Speed Manufacturing of Thermoplastic Composites Using Additive – Compression Molding (AM-CM)	Vipin Kumar (Oak Ridge National Laboratory)	5-64	3.50	3.67	3.50	3.33	3.56
MAT320	CCP 2.0, Task 4.2 – Designing and Manufacturing Adaptable Large-scale Hierarchical Materials with Tailorable Toughness	Seokpum Kim (Oak Ridge National Laboratory)	5-65	3.17	3.17	2.83	3.00	3.10

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
MAT321	Bio-inspired High-Performance 3D Printed Carbon Composite with Sensing: Surface Modification and AI/ML Approaches	Rigoberto Advincula (Oak Ridge National Laboratory)	5-66	3.50	3.33	3.50	3.67	3.44
MAT322	Printable Creep-Resistant Lightweight Conductors	Alex Plotkowski (Oak Ridge National Laboratory)	5-67	3.50	3.50	3.50	3.25	3.47
MAT323	CCP 2.0, Task 1.6 – Natural Fiber Composites with Low Carbon Resin Matrix†	Wenbin Kuang (Pacific Northwest National Laboratory)	5-68	3.50	3.17	3.17	3.00	3.23
MAT324	CCP 2.0, Task 2.5 – Electrospun Nanofiber Networks for Multifunctional Composites†	Christopher Bowland (Oak Ridge National Laboratory)	5-69	3.50	4.00	3.50	3.50	3.75
MAT325	CCP 2.0, Task 2.6 – Sensing and Fatigue Behavior Characterization of Multifunctional Composites†	Maria Feng (Columbia University)	5-70	2.88	2.75	2.50	3.00	2.78
MAT326	CCP 2.0, Task 4.4 – 3D Printing of High-Fidelity Heteroatom Containing Functional Carbons for Thermal Management†	Joshua Damron (Oak Ridge National Laboratory)	5-71	4.00	4.00	3.75	3.75	3.94

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
MAT340	CCP 2.0, Task 1.1 – Synthesis and Melt Spinning of Renewable Pitch for Low-Cost Carbon Fiber Precursor†	Michael Toomey (Oak Ridge National Laboratory)	5-72	3.00	3.50	1.50	3.50	3.13
Overall Average				3.36	3.41	3.24	3.26	3.36

† Denotes a poster presentation.

Presentation Number:

MAT159

Presentation Title:

Cost Effective Lightweight Alloys for Electric Vehicle Propulsion:
Fundamental Fatigue and Creep in
Advanced Lightweight Alloys

Principal Investigator:

Amit Shyam, Oak Ridge National
Laboratory

Presenter

Amit Shyam, Oak Ridge National
Laboratory

Reviewer Sample Size

A total of three reviewers evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the
project was relevant to current DOE
objectives, 0% of reviewers felt that
the project was not relevant, and
0% of reviewers did not indicate an
answer. 100% of reviewers felt that
the resources were sufficient, 0%
of reviewers felt that the resources
were insufficient, 0% of reviewers
felt that the resources were
excessive, and 0% of reviewers did not indicate an answer.

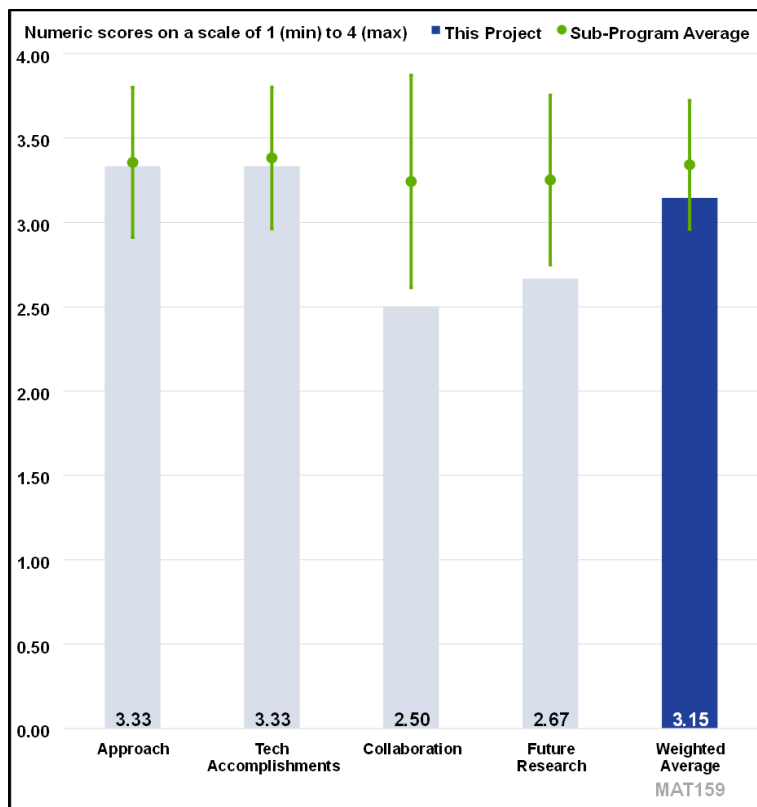


Figure 5-1 - Presentation Number: MAT159 Presentation Title:
Cost Effective Lightweight Alloys for Electric Vehicle
Propulsion: Fundamental Fatigue and Creep in Advanced
Lightweight Alloys Principal Investigator: Amit Shyam, Oak
Ridge National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT159_Shyam_2025_o.pdf

Presentation Number:

MAT174

Presentation Title:

Carbon-Fiber Technology Facility (CFTF)

Principal Investigator:

Daniel Webb, Oak Ridge National Laboratory

Presenter

Daniel Webb, Oak Ridge National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT174_Webb_2025_p.pdf

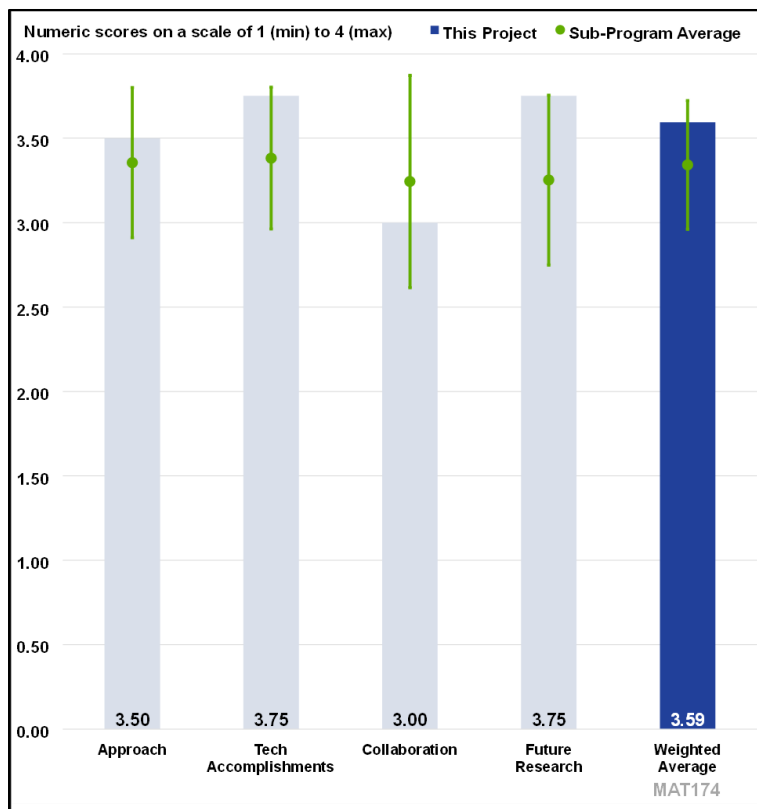


Figure 5-2 - Presentation Number: MAT174 Presentation Title: Carbon-Fiber Technology Facility (CFTF) Principal Investigator: Daniel Webb, Oak Ridge National Laboratory

Presentation Number:

MAT198

Presentation Title:

Development of Tailored Fiber Placement, Multi-Functional, High-Performance Composite Material Systems for High Volume Manufacture of Structural Battery Enclosure

Principal Investigator:

Venkat Aitharaju, General Motors

Presenter

Venkat Aitharaju, General Motors

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

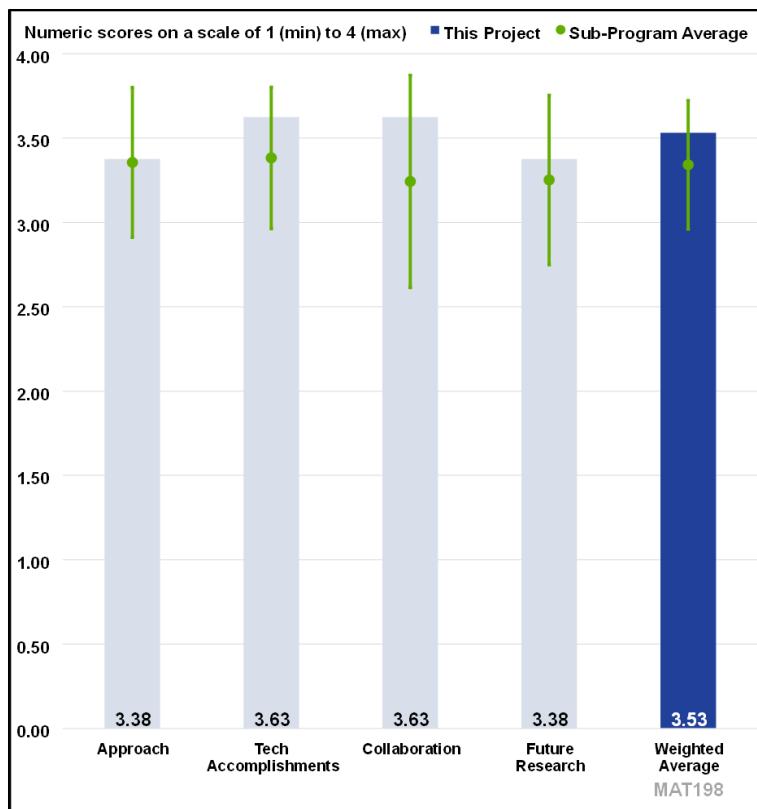


Figure 5-3 - Presentation Number: MAT198 Presentation Title: Development of Tailored Fiber Placement, Multi-Functional, High-Performance Composite Material Systems for High Volume Manufacture of Structural Battery Enclosure Principal Investigator: Venkat Aitharaju, General Motors

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT198_Aitharaju_2025.pdf

Presentation Number:

MAT204

Presentation Title:

New Frontier in Polymer Matrix Composites via Tailored Vitrimer Chemistry

Principal Investigator:

Tomonori Saito, Oak Ridge National Laboratory

Presenter

Tomonori Saito, Oak Ridge National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

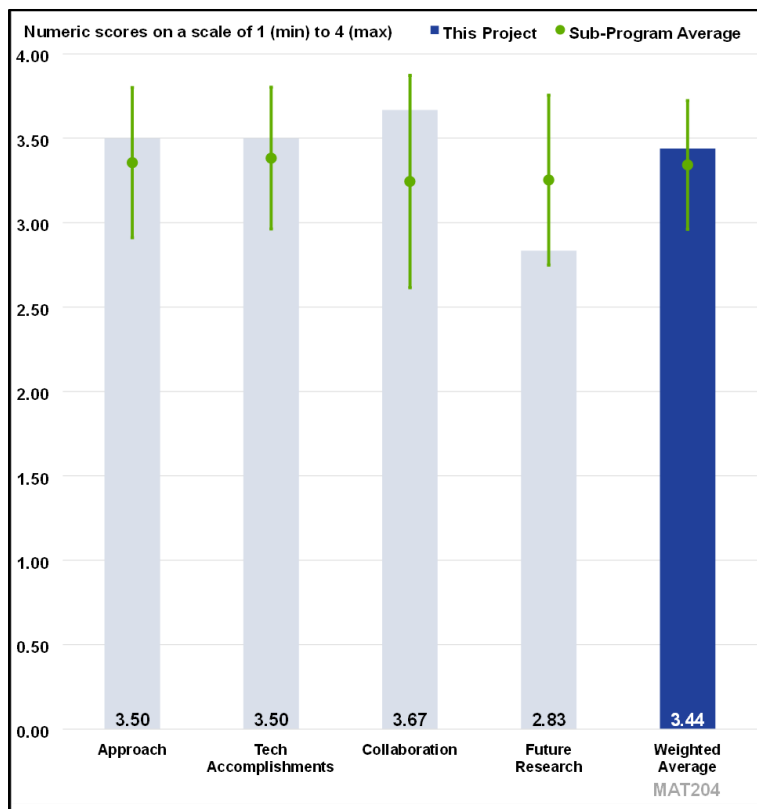


Figure 5-4 - Presentation Number: MAT204 Presentation Title: New Frontier in Polymer Matrix Composites via Tailored Vitrimer Chemistry Principal Investigator: Tomonori Saito, Oak Ridge National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT204_Saito_2025_p.pdf

Presentation Number:

MAT211

Presentation Title:

Sustainable Lightweight Intelligent Composites (SLIC) for Next-Generation Vehicles

Principal Investigator:

Masato Mizuta, Newport Sensors, Inc.

Presenter

Masato Mizuta, Newport Sensors, Inc.

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT211_Mizuta_2025_p.pdf

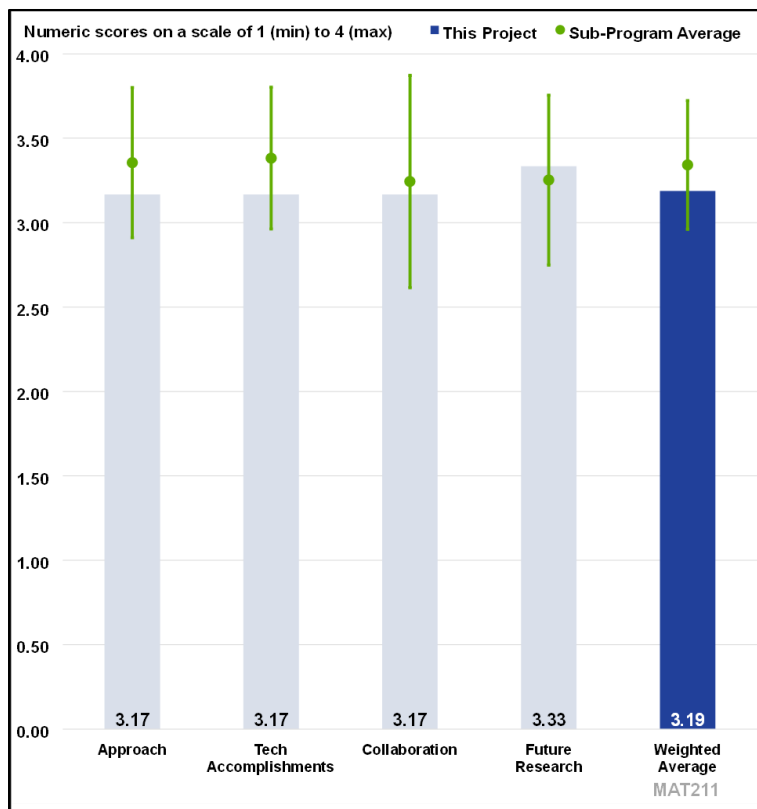


Figure 5-5 - Presentation Number: MAT211 Presentation Title: Sustainable Lightweight Intelligent Composites (SLIC) for Next-Generation Vehicles Principal Investigator: Masato Mizuta, Newport Sensors, Inc.

Presentation Number:

MAT212

Presentation Title:

Integrated Self-Sufficient Structurally Integrated Multifunctional Sensors for Autonomous Vehicles

Principal Investigator:

Serena Wang, Acellent Technologies, Inc.

Presenter

Amrita Kumar, Acellent Technologies, Inc.

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT212_Wang_2025_p.pdf

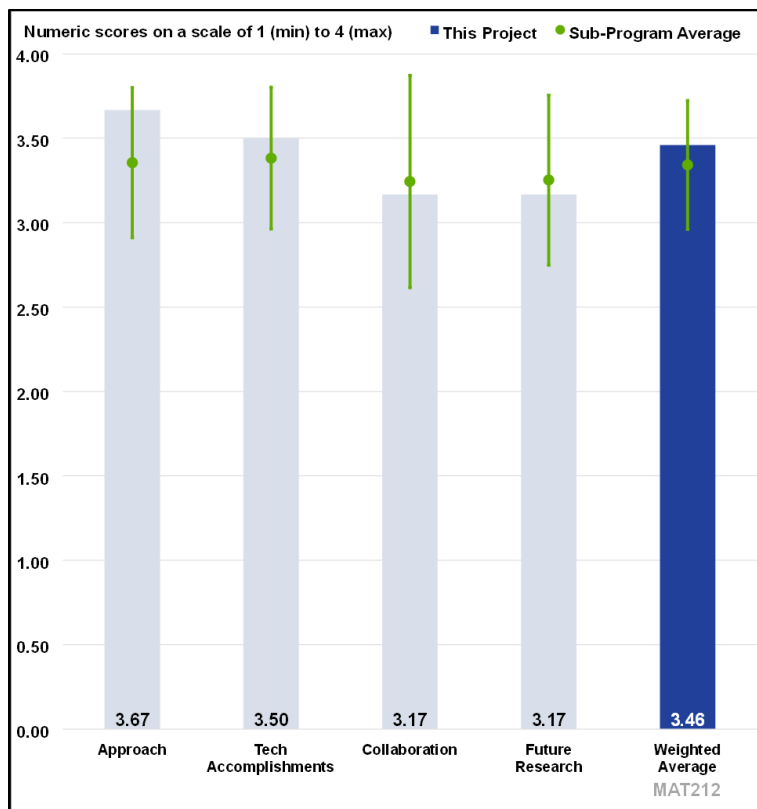


Figure 5-6 - Presentation Number: MAT212 Presentation Title: Integrated Self-Sufficient Structurally Integrated Multifunctional Sensors for Autonomous Vehicles Principal Investigator: Serena Wang, Acellent Technologies, Inc.

Presentation Number:

MAT236

Presentation Title:

Advanced Characterization and Computational Methods

Principal Investigator:

Thomas Watkins, Oak Ridge National Laboratory

Presenter

Thomas Watkins, Oak Ridge National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 67% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 33% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT236_Watkins_2025_o.pdf

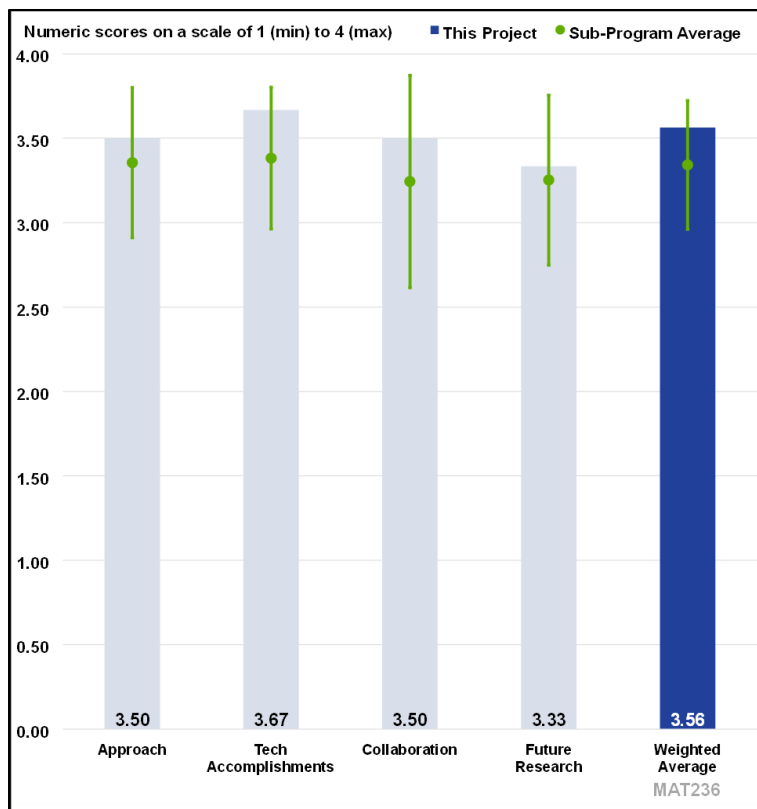


Figure 5-7 - Presentation Number: MAT236 Presentation Title: Advanced Characterization and Computational Methods Principal Investigator: Thomas Watkins, Oak Ridge National Laboratory

Presentation Number:

MAT237

Presentation Title:

Materials, Lubricants, and Cooling for Heavy-Duty Electric Vehicles

Principal Investigator:

Jun Qu, Oak Ridge National Laboratory

Presenter

Jun Qu, Oak Ridge National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT237_Qu_2025_o.pdf

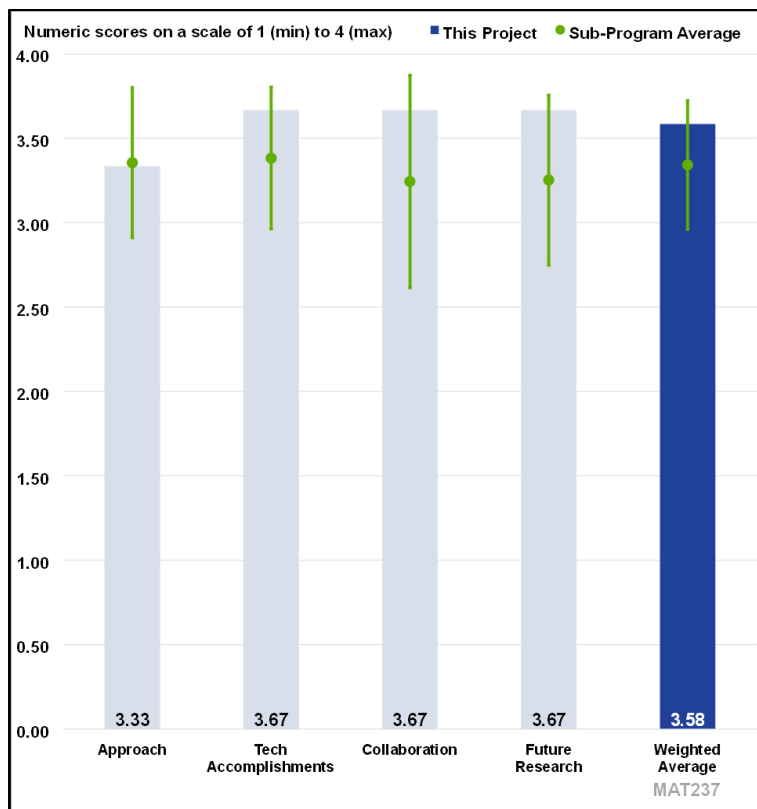


Figure 5-8 - Presentation Number: MAT237 Presentation Title: Materials, Lubricants, and Cooling for Heavy-Duty Electric Vehicles Principal Investigator: Jun Qu, Oak Ridge National Laboratory

Presentation Number:

MAT241

Presentation Title:

Advanced Processing and Additive Manufacturing for EV Propulsion:
Advanced Ceramics and Processing for Wireless Charging Systems

Principal Investigator:

Beth Armstrong, Oak Ridge National Laboratory

Presenter

Beth Armstrong, Oak Ridge National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 67% of reviewers felt that the resources were sufficient, 33% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

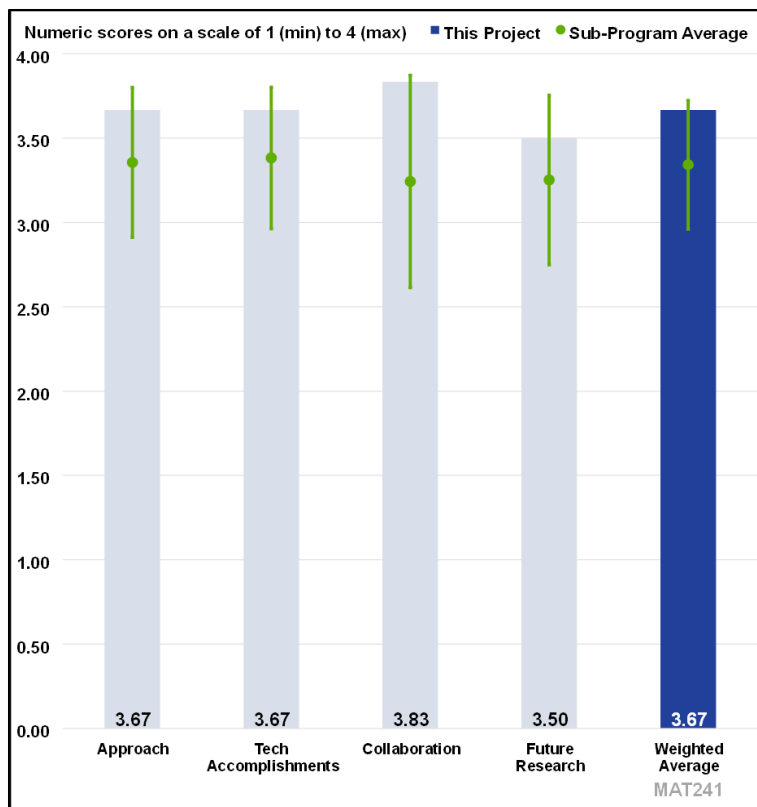


Figure 5-9 - Presentation Number: MAT241 Presentation Title: Advanced Processing and Additive Manufacturing for EV Propulsion: Advanced Ceramics and Processing for Wireless Charging Systems Principal Investigator: Beth Armstrong, Oak Ridge National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT241_Armstrong_2025_o.pdf

Presentation Number:

MAT242

Presentation Title:

Advanced Processing and Additive Manufacturing for EV Propulsion: Novel Ultra High Conductivity Composites for EVs

Principal Investigator:

Tolga Aytug, Oak Ridge National Laboratory

Presenter

Tolga Aytug, Oak Ridge National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT242_Aytug_2025_o.pdf

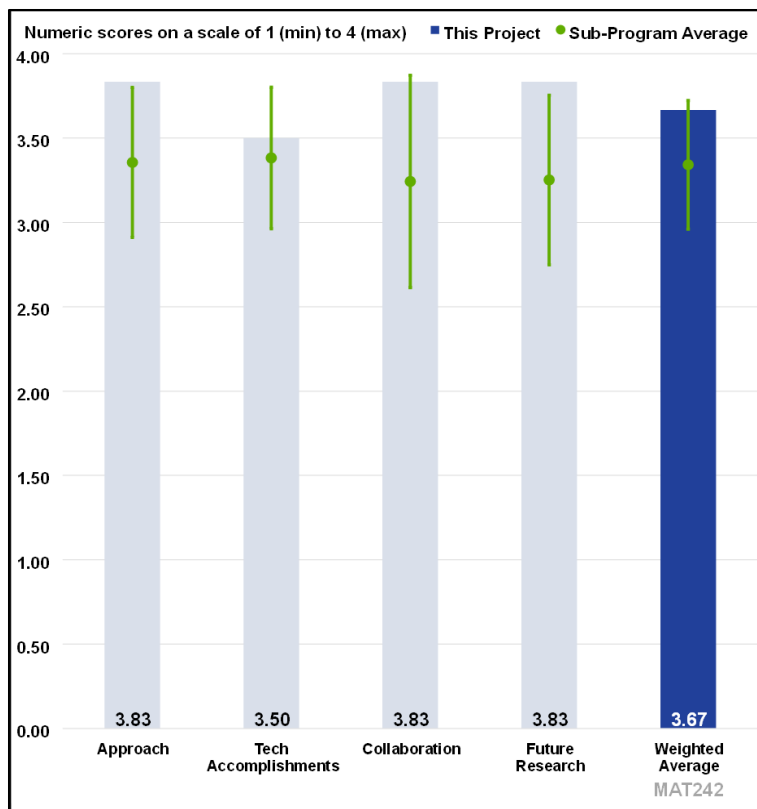


Figure 5-10 - Presentation Number: MAT242 Presentation Title: Advanced Processing and Additive Manufacturing for EV Propulsion: Novel Ultra High Conductivity Composites for EVs Principal Investigator: Tolga Aytug, Oak Ridge National Laboratory

Presentation Number:

MAT265

Presentation Title:

Low-Cost Multifunctional Composites from Recycled Materials for Lighter and Smarter Vehicles

Principal Investigator:

Xiaodong Li, University of Virginia

Presenter

Xiaodong Li, University of Virginia

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 67% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 33% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT265_Li_2025_o.pdf

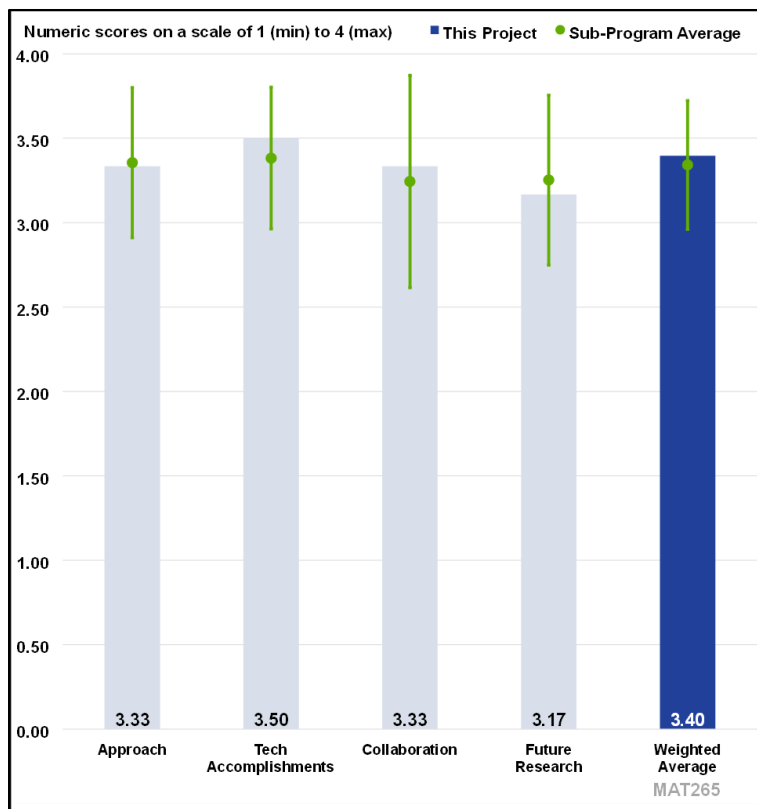


Figure 5-11 - Presentation Number: MAT265 Presentation Title: Low-Cost Multifunctional Composites from Recycled Materials for Lighter and Smarter Vehicles Principal Investigator: Xiaodong Li, University of Virginia

Presentation Number:

MAT266

Presentation Title:

Development and Manufacturing of Multifunctional Energy Storage Composites (MESC) for Automotive Vehicles

Principal Investigator:

Amrita Kumar, Acellent Technologies, Inc.

Presenter

Amrita Kumar, Acellent Technologies, Inc.

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT266_Kumar_2025_o.pdf

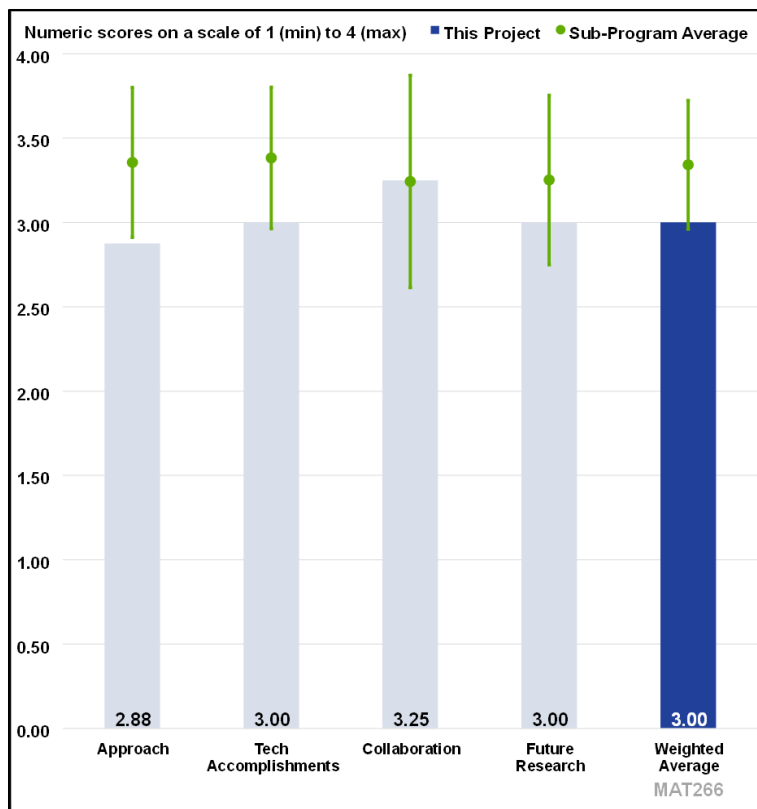


Figure 5-12 - Presentation Number: MAT266 Presentation Title: Development and Manufacturing of Multifunctional Energy Storage Composites (MESC) for Automotive Vehicles Principal Investigator: Amrita Kumar, Acellent Technologies, Inc.

Presentation Number:

MAT267

Presentation Title:

Multiscale Bioinspired Enhancement of Natural-Fiber Composites for Green Vehicles

Principal Investigator:

Lorenzo Mencatteli, Helicoid Industries, Inc.

Presenter

Paul Myslinski, Helicoid Industries, Inc.

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

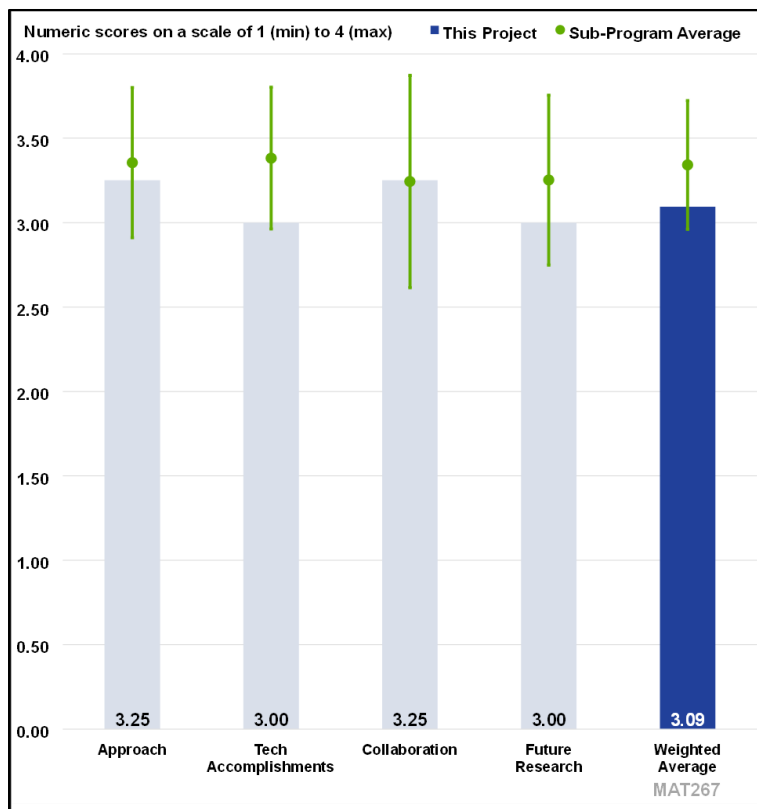


Figure 5-13 - Presentation Number: MAT267 Presentation Title: Multiscale Bioinspired Enhancement of Natural-Fiber Composites for Green Vehicles Principal Investigator: Lorenzo Mencatteli, Helicoid Industries, Inc.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT267_Mencatteli_2025_p.pdf

Presentation Number:

MAT280

Presentation Title:

Materials and Manufacturing Innovation for Sustainable Automotive Composites: Thrust 1 – Innovative Low-Cost Carbon Fiber and Alternative Fiber Technologies (Overview)

Principal Investigator:

Amit Naskar, Oak Ridge National Laboratory

Presenter

Amit Naskar/Felix Paulauskas, Oak Ridge National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT280_Naskar_Paulauskas_2025_o.pdf

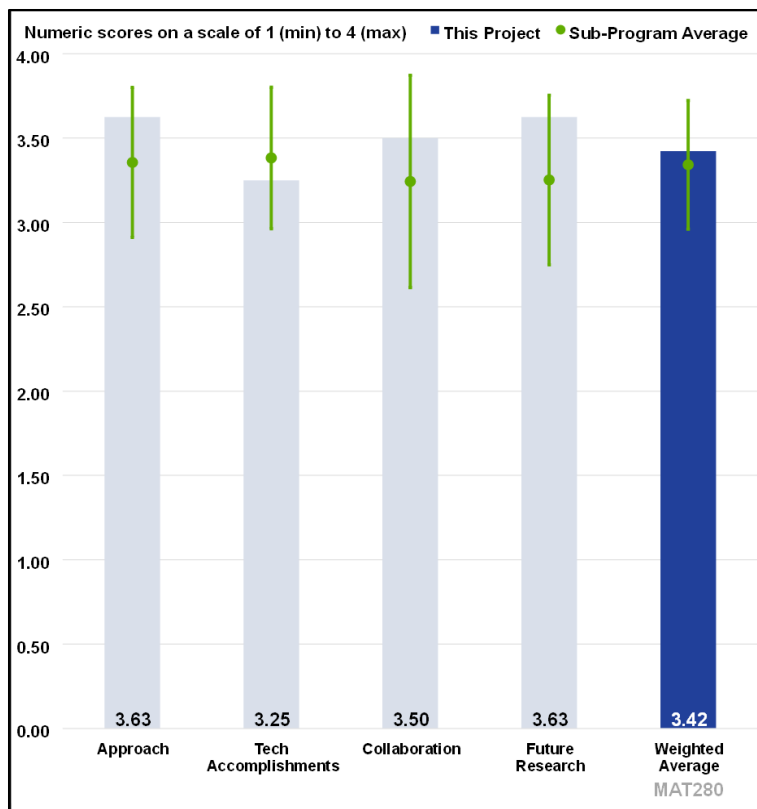


Figure 5-14 - Presentation Number: MAT280 Presentation Title: Materials and Manufacturing Innovation for Sustainable Automotive Composites: Thrust 1 – Innovative Low-Cost Carbon Fiber and Alternative Fiber Technologies (Overview) Principal Investigator: Amit Naskar, Oak Ridge National Laboratory

Presentation Number:

MAT281

Presentation Title:

Materials and Manufacturing Innovation for Sustainable Automotive Composites: Thrust 2 – Multi-Functional Materials and Structures (Overview)

Principal Investigator:

Christopher Bowland, Oak Ridge National Laboratory

Presenter

Christopher Bowland/Seokpum Kim, Oak Ridge National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT281_Bowland_Kim_2025_o.pdf

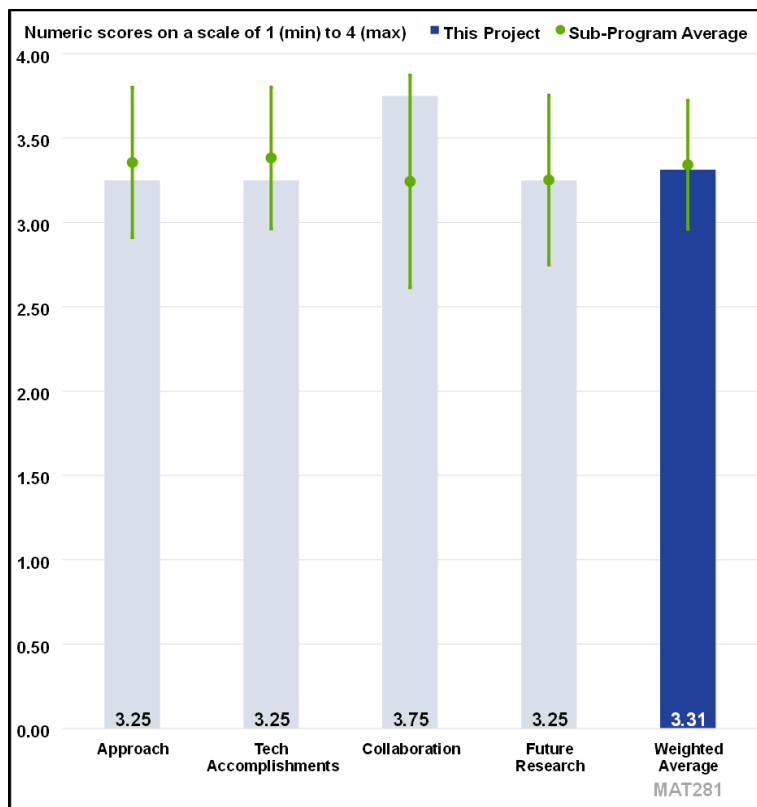


Figure 5-15 - Presentation Number: MAT281 Presentation Title: Materials and Manufacturing Innovation for Sustainable Automotive Composites: Thrust 2 – Multi-Functional Materials and Structures (Overview) Principal Investigator: Christopher Bowland, Oak Ridge National Laboratory

Presentation Number:

MAT282

Presentation Title:

Materials and Manufacturing Innovation for Sustainable Automotive Composites: Thrust 3 – Circularity and Sustainability of Polymer Composites (Overview)

Principal Investigator:

Nicholas Rorrer, National Renewable Energy Laboratory

Presenter

Nicholas Rorrer/Caitlyn Clarkson, National Renewable Energy Laboratory/Oak Ridge National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT282_Rorrer_Clarkson_2025_o.pdf

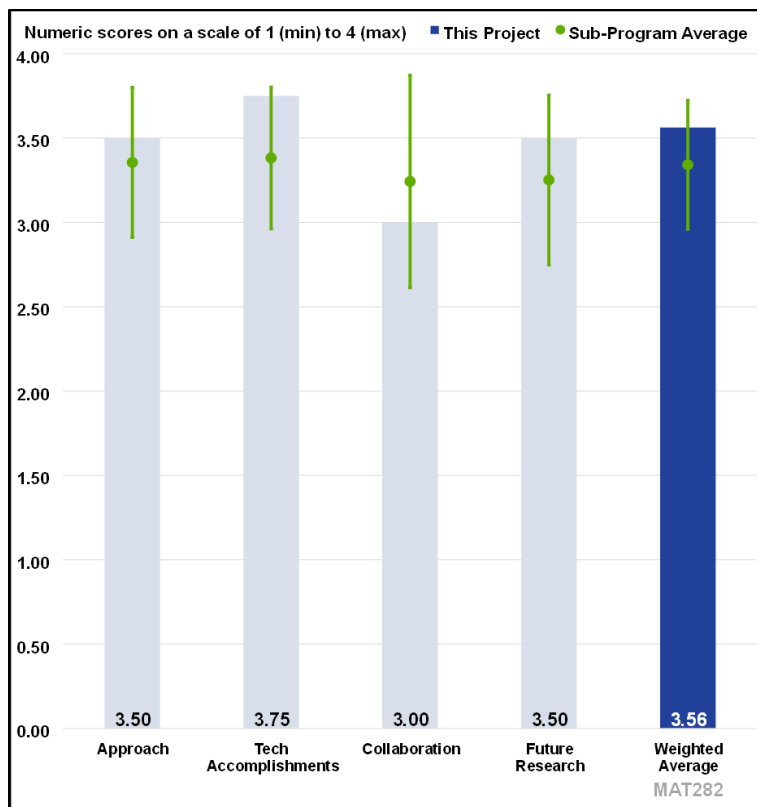


Figure 5-16 - Presentation Number: MAT282 Presentation Title: Materials and Manufacturing Innovation for Sustainable Automotive Composites: Thrust 3 – Circularity and Sustainability of Polymer Composites (Overview) Principal Investigator: Nicholas Rorrer, National Renewable Energy Laboratory

Presentation Number:

MAT283

Presentation Title:

Materials and Manufacturing Innovation for Sustainable Automotive Composites: Thrust 4 – Polymeric Materials and Their Composites in Additive Manufacturing (Overview)

Principal Investigator:

Logan Kearney, Oak Ridge National Laboratory

Presenter

Logan Kearney/Vipin Kumar, Oak Ridge National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT283_Kearney_Kumar_2025_o.pdf

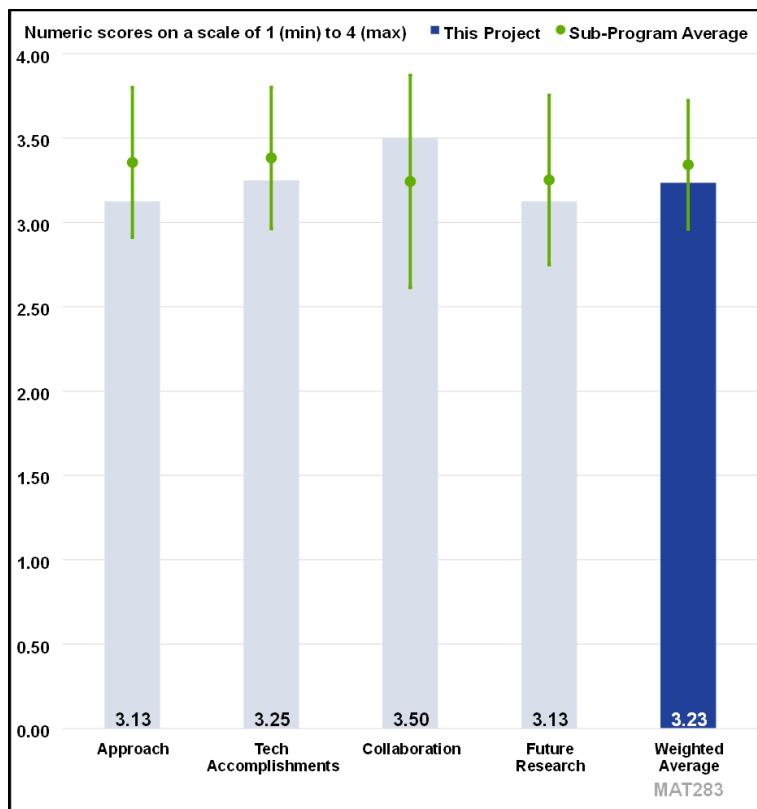


Figure 5-17 - Presentation Number: MAT283 Presentation Title: Materials and Manufacturing Innovation for Sustainable Automotive Composites: Thrust 4 – Polymeric Materials and Their Composites in Additive Manufacturing (Overview) Principal Investigator: Logan Kearney, Oak Ridge National Laboratory

Presentation Number:

MAT286

Presentation Title:

CCP 2.0, Task 2.1 – Spatio-Temporal Damage Characterization of Multifunctional Composites

Principal Investigator:

Christopher Bowland, Oak Ridge National Laboratory

Presenter

Christopher Bowland, Oak Ridge National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

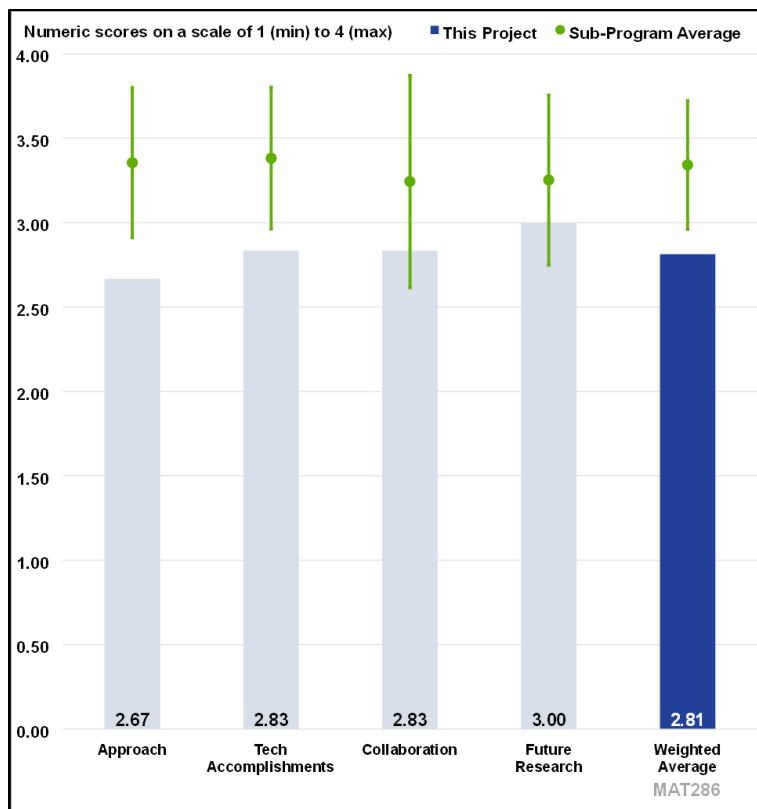


Figure 5-18 - Presentation Number: MAT286 Presentation Title: CCP 2.0, Task 2.1 – Spatio-Temporal Damage Characterization of Multifunctional Composites Principal Investigator: Christopher Bowland, Oak Ridge National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT286_Bowland_2025_o.pdf

Presentation Number:

MAT287

Presentation Title:

CCP 2.0, Task 2.2 – Advanced Discontinuous-Continuous Carbon Composites with Embedded Electronics in High-Rate Processes

Principal Investigator:

Uday Vaidya, The University of Tennessee, Knoxville

Presenter

Uday Vaidya, The University of Tennessee, Knoxville

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

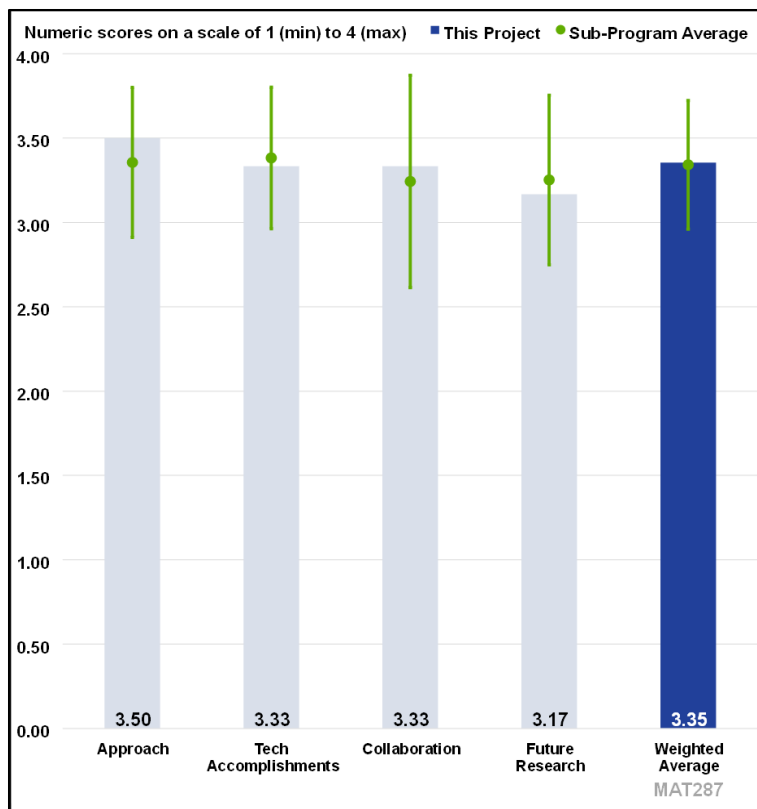


Figure 5-19 - Presentation Number: MAT287 Presentation Title: CCP 2.0, Task 2.2 – Advanced Discontinuous-Continuous Carbon Composites with Embedded Electronics in High-Rate Processes Principal Investigator: Uday Vaidya, The University of Tennessee, Knoxville

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT287_Vaidya_2025_o.pdf

Presentation Number:

MAT288

Presentation Title:

CCP 2.0, Task 2.3 – Lightweight Multi-Functional Materials for Self-Sensing, Powering and Actuation

Principal Investigator:

Seokpum Kim, Oak Ridge National Laboratory

Presenter

Seokpum Kim, Oak Ridge National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT288_Kim_2025_o.pdf

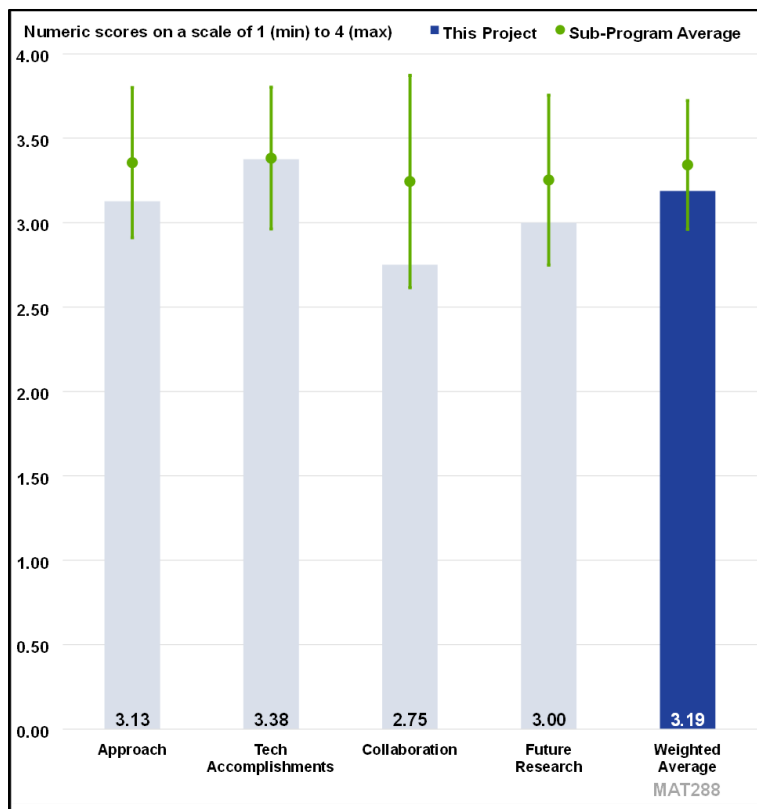


Figure 5-20 - Presentation Number: MAT288 Presentation Title: CCP 2.0, Task 2.3 – Lightweight Multi-Functional Materials for Self-Sensing, Powering and Actuation Principal Investigator: Seokpum Kim, Oak Ridge National Laboratory

Presentation Number:

MAT289

Presentation Title:

CCP 2.0, Task 2.4 – Data-driven Lightweight Multi-Functional Composite Design for Improved Thermal Management and Energy Harvesting

Principal Investigator:

Sumit Gupta, Oak Ridge National Laboratory

Presenter

Sumit Gupta, Oak Ridge National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT289_Gupta_2025_o.pdf

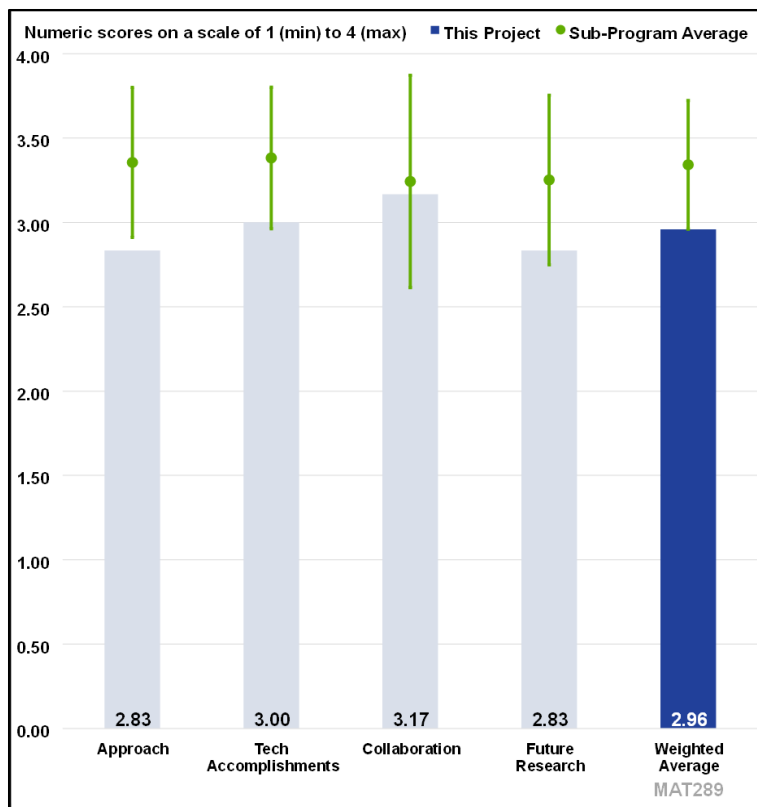


Figure 5-21 - Presentation Number: MAT289 Presentation Title: CCP 2.0, Task 2.4 – Data-driven Lightweight Multi-Functional Composite Design for Improved Thermal Management and Energy Harvesting Principal Investigator: Sumit Gupta, Oak Ridge National Laboratory

Presentation Number:

MAT290

Presentation Title:

CCP 2.0, Task 1.2 – Next Generation Carbon Fibers for Vehicles from Waste Polyolefins via Selective C-H Functionalization

Principal Investigator:

Logan Kearney, Oak Ridge National Laboratory

Presenter

Logan Kearney, Oak Ridge National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

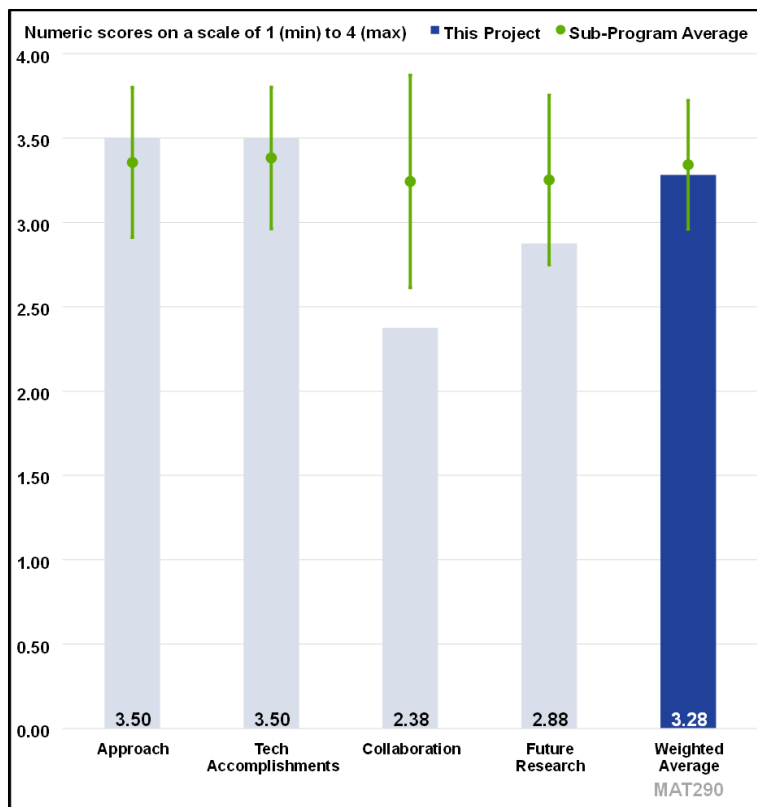


Figure 5-22 - Presentation Number: MAT290 Presentation Title: CCP 2.0, Task 1.2 – Next Generation Carbon Fibers for Vehicles from Waste Polyolefins via Selective C-H Functionalization Principal Investigator: Logan Kearney, Oak Ridge National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT290_Kearney_2025_o.p df

Presentation Number:

MAT291

Presentation Title:

CCP 2.0, Task 1.4 – High-Molecular Weight Polyethylene Fibers for Self-Reinforced Composites

Principal Investigator:

Amit Naskar, Oak Ridge National Laboratory

Presenter

Amit Naskar, Oak Ridge National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 50% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 50% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

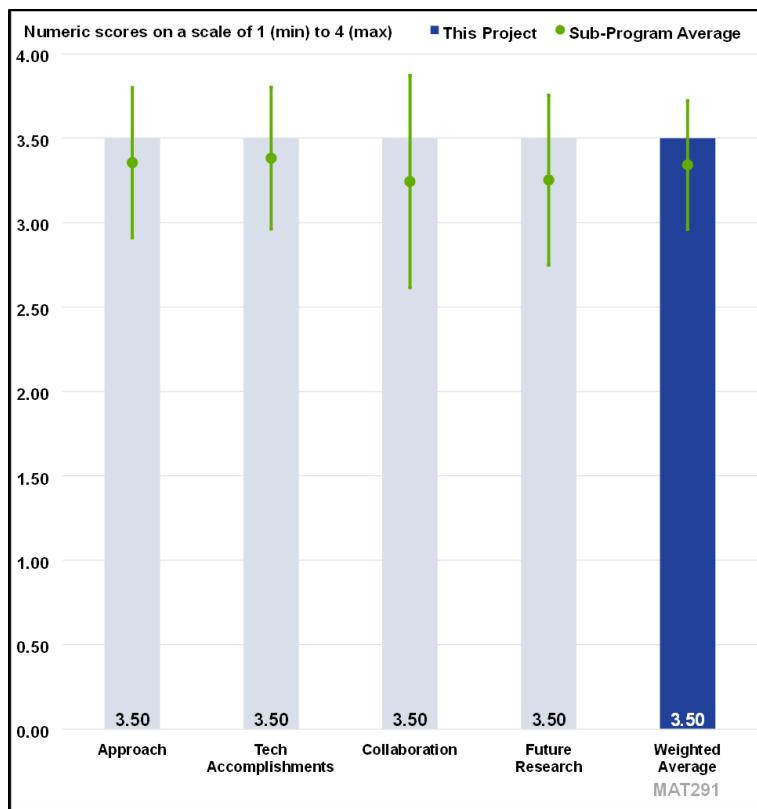


Figure 5-23 - Presentation Number: MAT291 Presentation Title: CCP 2.0, Task 1.4 – High-Molecular Weight Polyethylene Fibers for Self-Reinforced Composites Principal Investigator: Amit Naskar, Oak Ridge National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT291_Naskar_2025_o.pdf

Presentation Number:

MAT292

Presentation Title:

CCP 2.0, Task 1.3 – A Viable Route from Acrylic Textiles to Low-Cost Carbon Fiber

Principal Investigator:

Felix Paulauskas, Oak Ridge National Laboratory

Presenter

Felix Paulauskas, Oak Ridge National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 75% of reviewers felt that the resources were sufficient, 25% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

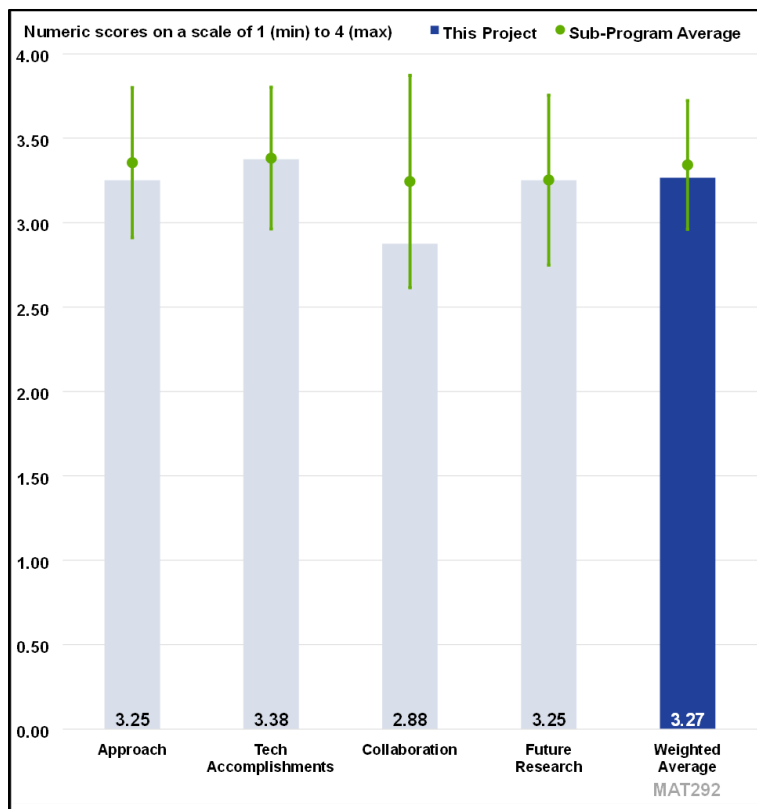


Figure 5-24 - Presentation Number: MAT292 Presentation Title: CCP 2.0, Task 1.3 – A Viable Route from Acrylic Textiles to Low-Cost Carbon Fiber Principal Investigator: Felix Paulauskas, Oak Ridge National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT292_Paulauskas_2025_o.pdf

Presentation Number:

MAT293

Presentation Title:

CCP 2.0, Task 1.5 – High-performance Polymer-Fiber-Reinforced Polymer Composites (PFRPs)

Principal Investigator:

Yao Qiao, Pacific Northwest National Laboratory

Presenter

Yao Qiao, Pacific Northwest National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT293_Qiao_2025_o.pdf

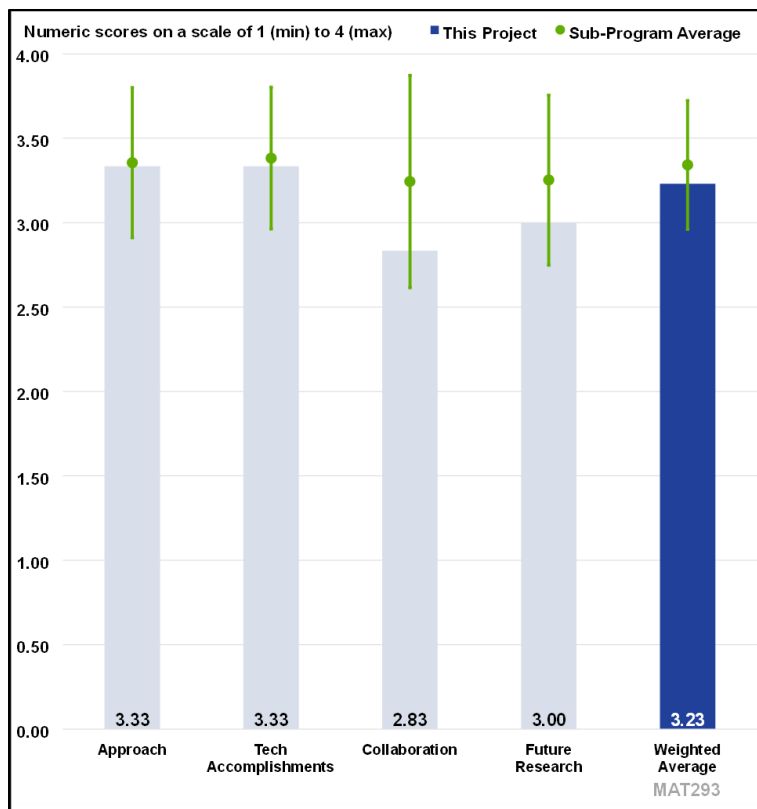


Figure 5-25 - Presentation Number: MAT293 Presentation Title: CCP 2.0, Task 1.5 – High-performance Polymer-Fiber-Reinforced Polymer Composites (PFRPs) Principal Investigator: Yao Qiao, Pacific Northwest National Laboratory

Presentation Number:

MAT294

Presentation Title:

Bulk-Scale Ultra-Conductors via Low-C Manufacturing Pathways

Principal Investigator:

Keerti Kappagantula, Pacific Northwest National Laboratory

Presenter

Keerti Kappagantula, Pacific Northwest National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT294_Kappagantula_2025_o.pdf

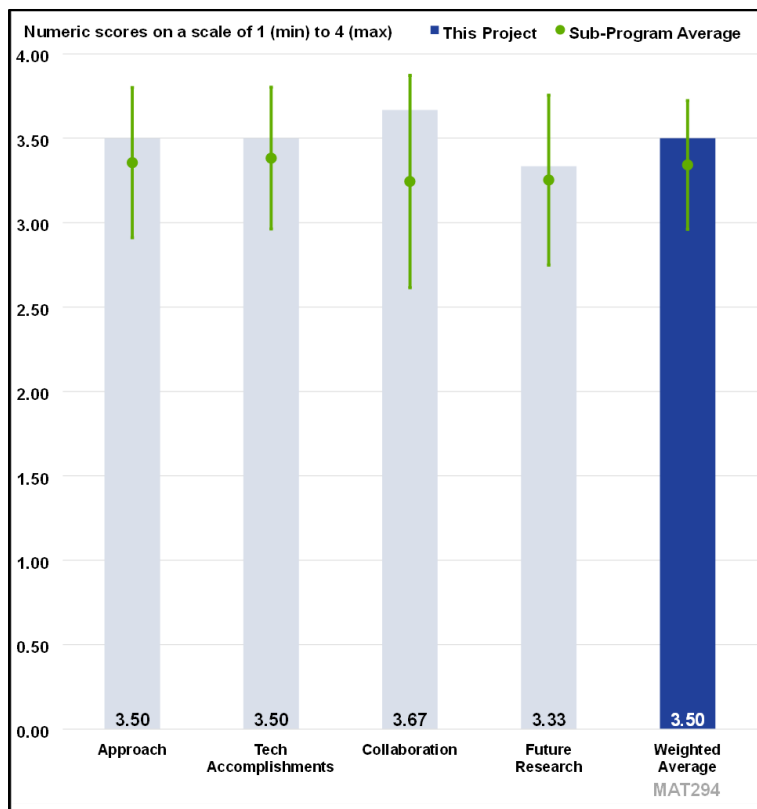


Figure 5-26 - Presentation Number: MAT294 Presentation Title: Bulk-Scale Ultra-Conductors via Low-C Manufacturing Pathways Principal Investigator: Keerti Kappagantula, Pacific Northwest National Laboratory

Presentation Number:

MAT295

Presentation Title:

High Resistivity Fe₆Si-X Rolled Steels for Soft Magnetic Cores

Principal Investigator:

Govindarajan Muralidharan, Oak Ridge National Laboratory

Presenter

Govindarajan Muralidharan, Oak Ridge National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT295_Muralidharan_2025_o.pdf

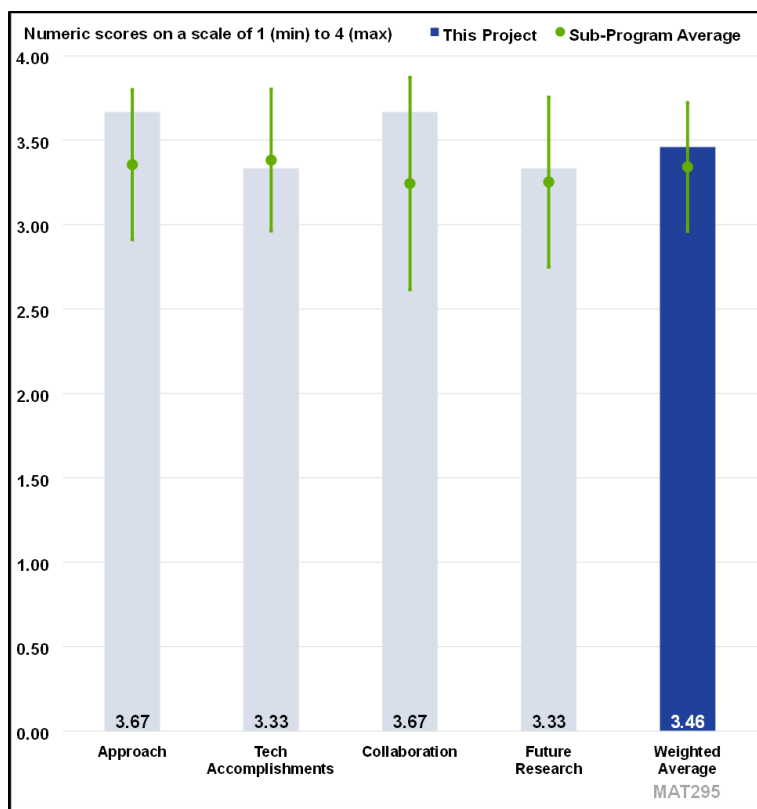


Figure 5-27 - Presentation Number: MAT295 Presentation Title: High Resistivity Fe₆Si-X Rolled Steels for Soft Magnetic Cores Principal Investigator: Govindarajan Muralidharan, Oak Ridge National Laboratory

Presentation Number:

MAT296

Presentation Title:

Near Net Shape High Strength SMCs for Axial Flux Motors

Principal Investigator:

Vineet V. Joshi, Pacific Northwest National Laboratory

Presenter

Vineet V. Joshi, Pacific Northwest National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT296_Joshi_2025_o.pdf

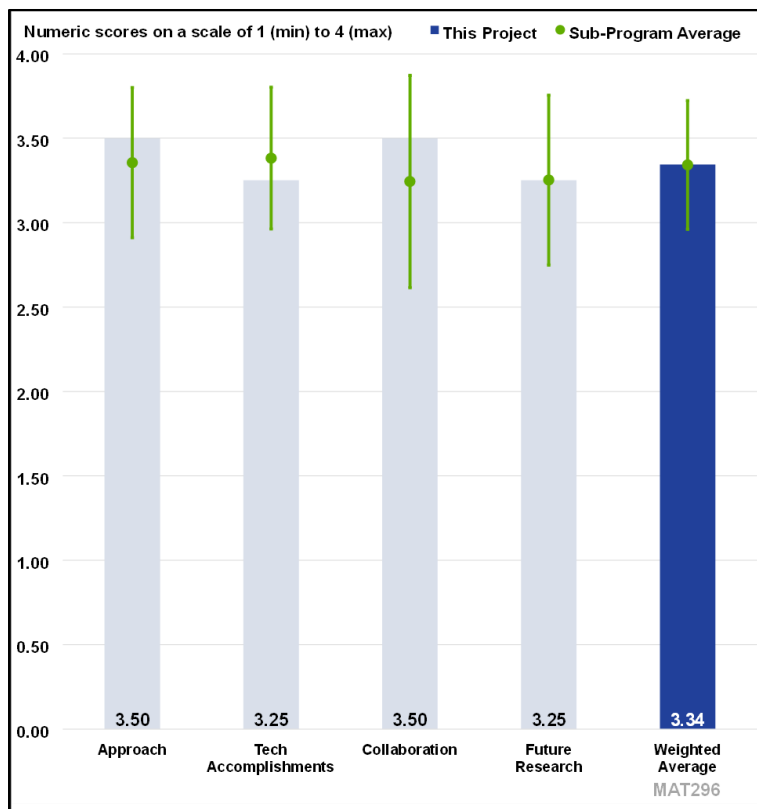


Figure 5-28 - Presentation Number: MAT296 Presentation Title: Near Net Shape High Strength SMCs for Axial Flux Motors Principal Investigator: Vineet V. Joshi, Pacific Northwest National Laboratory

Presentation Number:

MAT297

Presentation Title:

Opportunities to Support Integration of Non-Electric Propulsion Systems

Principal Investigator:

Rishi Pillai, Oak Ridge National Laboratory

Presenter

Rishi Pillai, Oak Ridge National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT297_Pillai_2025_o.pdf

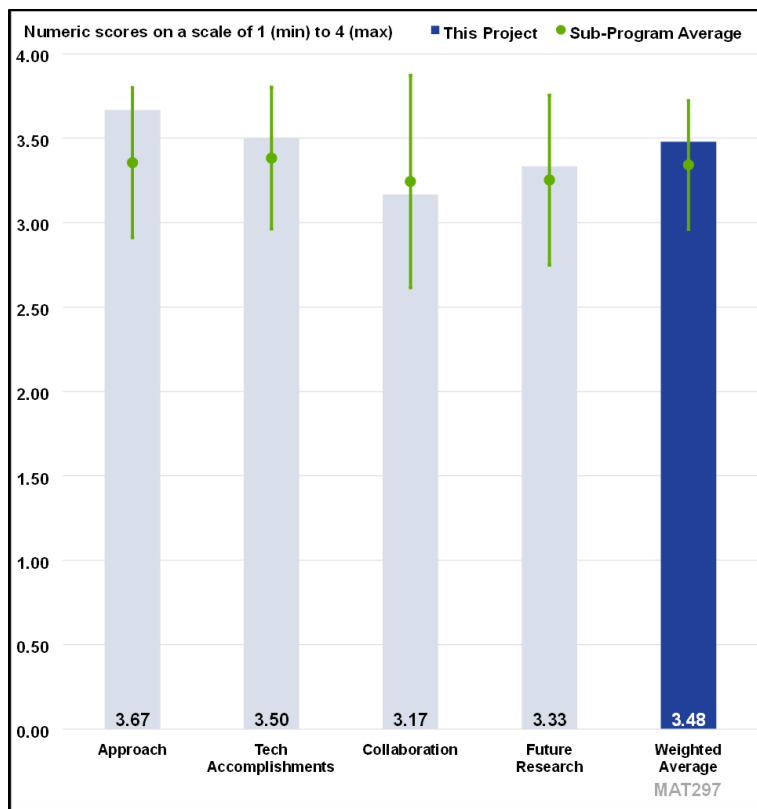


Figure 5-29 - Presentation Number: MAT297 Presentation Title: Opportunities to Support Integration of Non-Electric Propulsion Systems Principal Investigator: Rishi Pillai, Oak Ridge National Laboratory

Presentation Number:

MAT298

Presentation Title:

LMCP 2.0 Task 1A – Flaw Mitigation and Repair in Ultra Large Castings Composed of High Secondary Alloy Content

Principal Investigator:

Saumyadeep Jana, Pacific Northwest National Laboratory

Presenter

Saumyadeep Jana/Piyush Upadhayay, Pacific Northwest National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 75% of reviewers felt that the resources were sufficient, 25% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT298_Jana_Upadhayay_2025_o.pdf

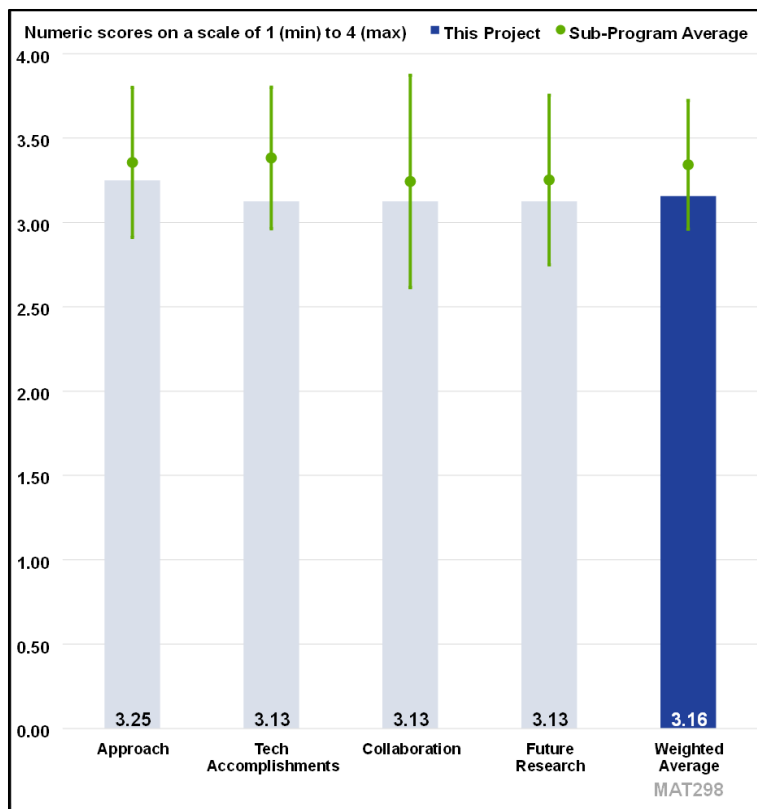


Figure 5-30 - Presentation Number: MAT298 Presentation Title: LMCP 2.0 Task 1A – Flaw Mitigation and Repair in Ultra Large Castings Composed of High Secondary Alloy Content Principal Investigator: Saumyadeep Jana, Pacific Northwest National Laboratory

Presentation Number:

MAT299

Presentation Title:

LMCP 2.0 Task 1B – Post Processing of Castings for Energy Absorption in Crash

Principal Investigator:

Piyush Upadhayay, Pacific Northwest National Laboratory

Presenter

Piyush Upadhayay, Pacific Northwest National Laboratory

Reviewer Sample Size

A total of one reviewer evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT299_Upadhayay_2025_o.pdf

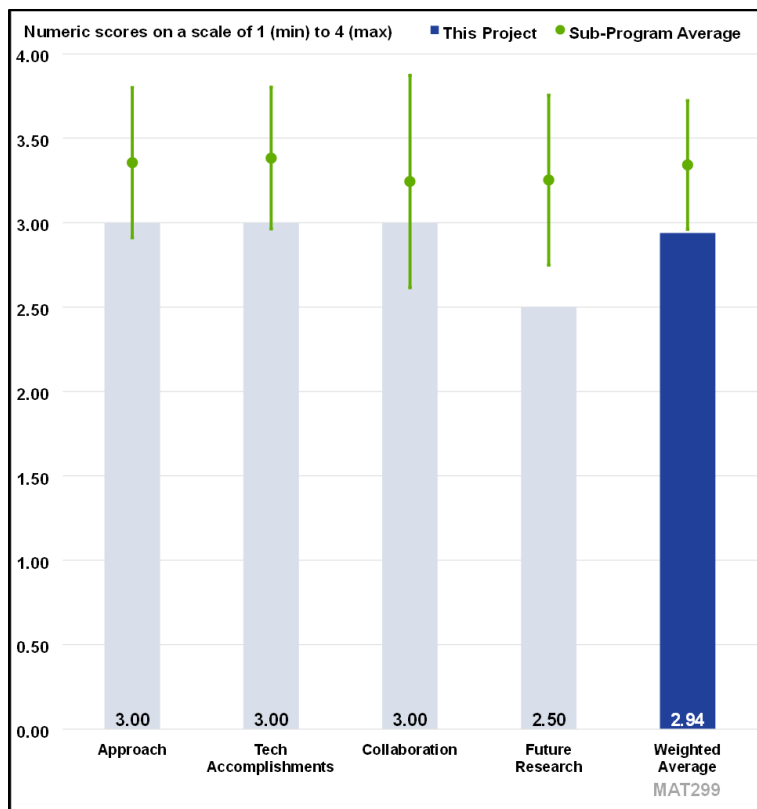


Figure 5-31 - Presentation Number: MAT299 Presentation Title: LMCP 2.0 Task 1B – Post Processing of Castings for Energy Absorption in Crash Principal Investigator: Piyush Upadhayay, Pacific Northwest National Laboratory

Presentation Number:

MAT300

Presentation Title:

LMCP 2.0 Task 1C – Enhancing Mechanical Performance of HPDC Al Castings by In-Situ Ultrasonic Processing

Principal Investigator:

Aashish Rohatgi, Pacific Northwest National Laboratory

Presenter

Aashish Rohatgi, Pacific Northwest National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 75% of reviewers felt that the resources were sufficient, 25% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT300_Rohatgi_2025_o.p df

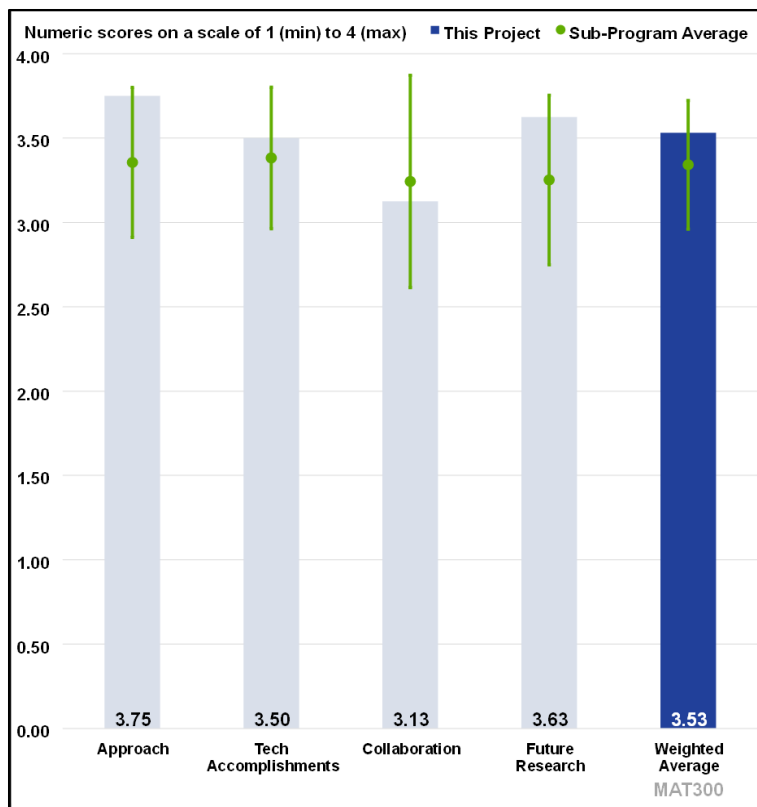


Figure 5-32 - Presentation Number: MAT300 Presentation Title: LMCP 2.0 Task 1C – Enhancing Mechanical Performance of HPDC Al Castings by In-Situ Ultrasonic Processing Principal Investigator: Aashish Rohatgi, Pacific Northwest National Laboratory

Presentation Number:

MAT301

Presentation Title:

LMCP 2.0 Task 1D-24 – Mechanical Behavior of HPDC Al Alloys with High Secondary Content

Principal Investigator:

Sumit Bahl, Oak Ridge National Laboratory

Presenter

Sumit Bahl, Oak Ridge National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

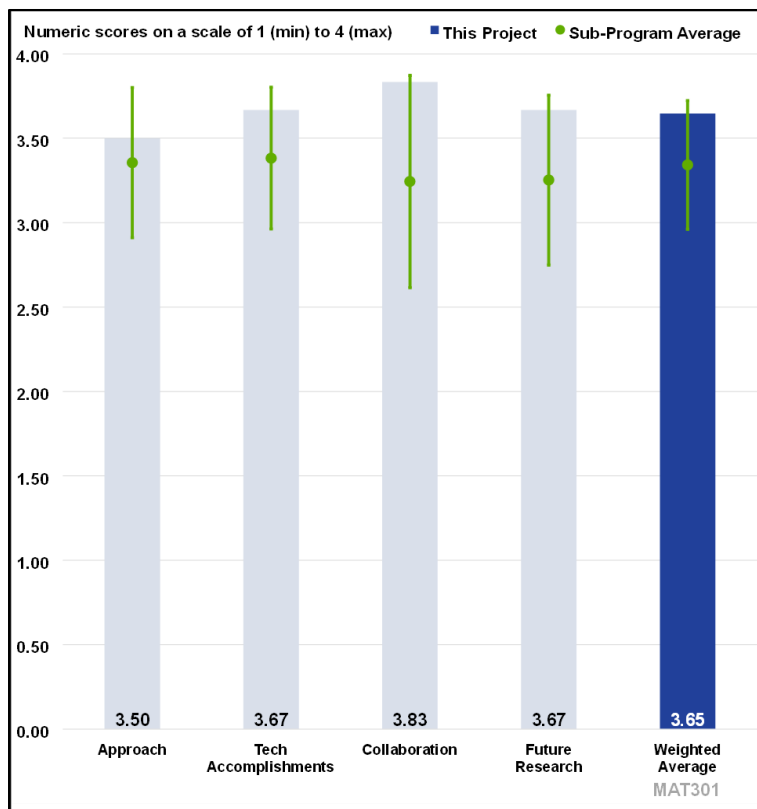


Figure 5-33 - Presentation Number: MAT301 Presentation Title: LMCP 2.0 Task 1D-24 – Mechanical Behavior of HPDC Al Alloys with High Secondary Content Principal Investigator: Sumit Bahl, Oak Ridge National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT301_Bahl_2025_o.pdf

Presentation Number:

MAT302

Presentation Title:

LMCP 2.0 Task 2A-24 – Design of Sustainable Lightweight Cast Alloys for HPDC

Principal Investigator:

Amit Shyam, Oak Ridge National Laboratory

Presenter

Amit Shyam, Oak Ridge National Laboratory

Reviewer Sample Size

A total of one reviewer evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

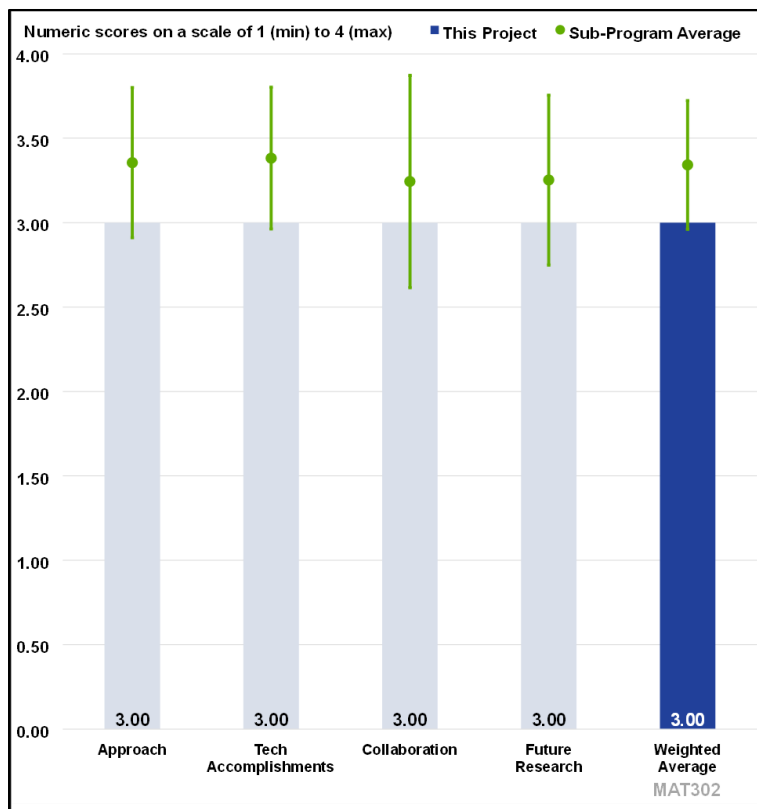


Figure 5-34 - Presentation Number: MAT302 Presentation Title: LMCP 2.0 Task 2A-24 – Design of Sustainable Lightweight Cast Alloys for HPDC Principal Investigator: Amit Shyam, Oak Ridge National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT302_Shyam_2025_o.pdf

Presentation Number:

MAT303

Presentation Title:

LMCP 2.0 Task 2B-24 –
Optimization of T5 Heat Treatments
in Diecast Alloys

Principal Investigator:

Dongwon Shin, Oak Ridge National
Laboratory

Presenter

Dongwon Shin, Oak Ridge National
Laboratory

Reviewer Sample Size

A total of four reviewers evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the
project was relevant to current DOE
objectives, 0% of reviewers felt that
the project was not relevant, and
0% of reviewers did not indicate an
answer. 100% of reviewers felt that
the resources were sufficient, 0%
of reviewers felt that the resources
were insufficient, 0% of reviewers
felt that the resources were
excessive, and 0% of reviewers did not indicate an answer.

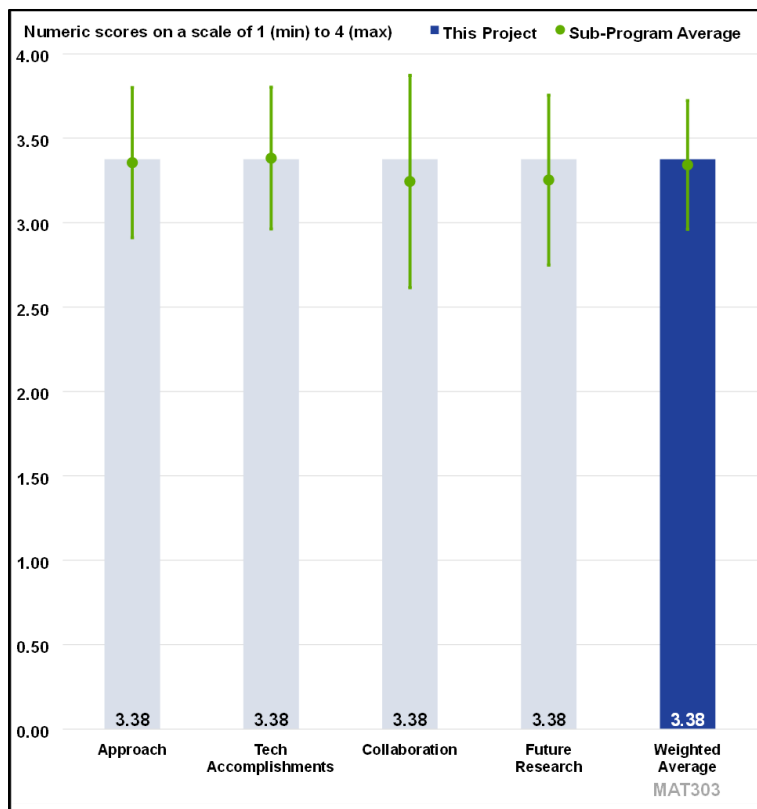


Figure 5-35 - Presentation Number: MAT303 Presentation Title:
LMCP 2.0 Task 2B-24 – Optimization of T5 Heat Treatments in
Diecast Alloys Principal Investigator: Dongwon Shin, Oak
Ridge National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT303_Shin_2025_o.pdf

Presentation Number:

MAT304

Presentation Title:

LMCP 2.0 Task 2C-24 –
Fundamentals of Solidification for
LW Alloys with High Secondary
Content

Principal Investigator:

Ying Yang, Oak Ridge National
Laboratory

Presenter

Ying Yang, Oak Ridge National
Laboratory

Reviewer Sample Size

A total of two reviewers evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT304_Yang_2025_o.pdf

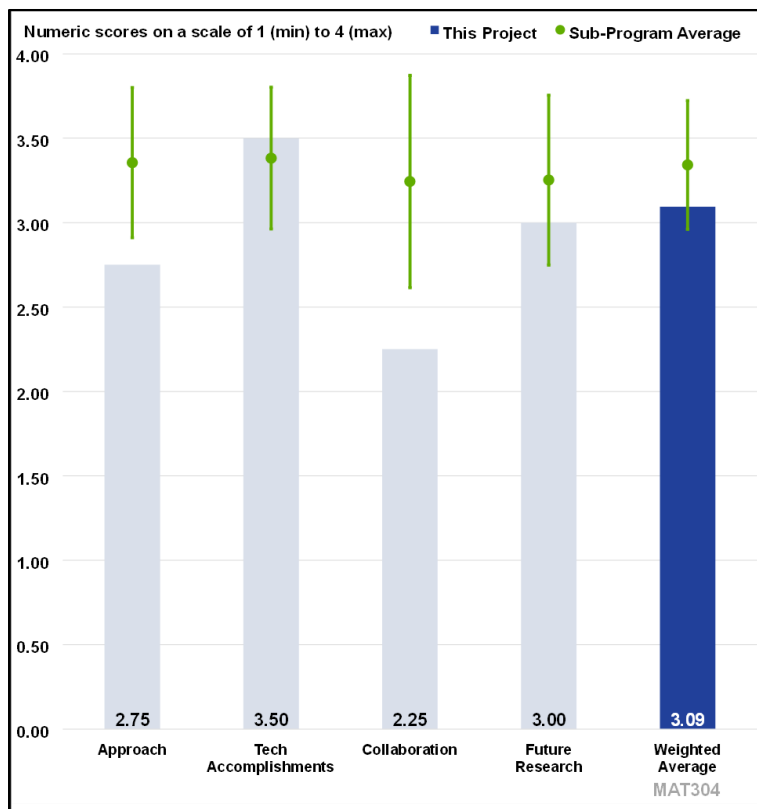


Figure 5-36 - Presentation Number: MAT304 Presentation Title: LMCP 2.0 Task 2C-24 – Fundamentals of Solidification for LW Alloys with High Secondary Content Principal Investigator: Ying Yang, Oak Ridge National Laboratory

Presentation Number:

MAT305

Presentation Title:

LMCP 2.0 Task 2E-24 – Upcycling of Secondary LW Alloys Using Additive Manufacturing

Principal Investigator:

Jovid Rakhmonov, Oak Ridge National Laboratory

Presenter

Jovid Rakhmonov, Oak Ridge National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT305_Rakhmonov_2025_o.pdf

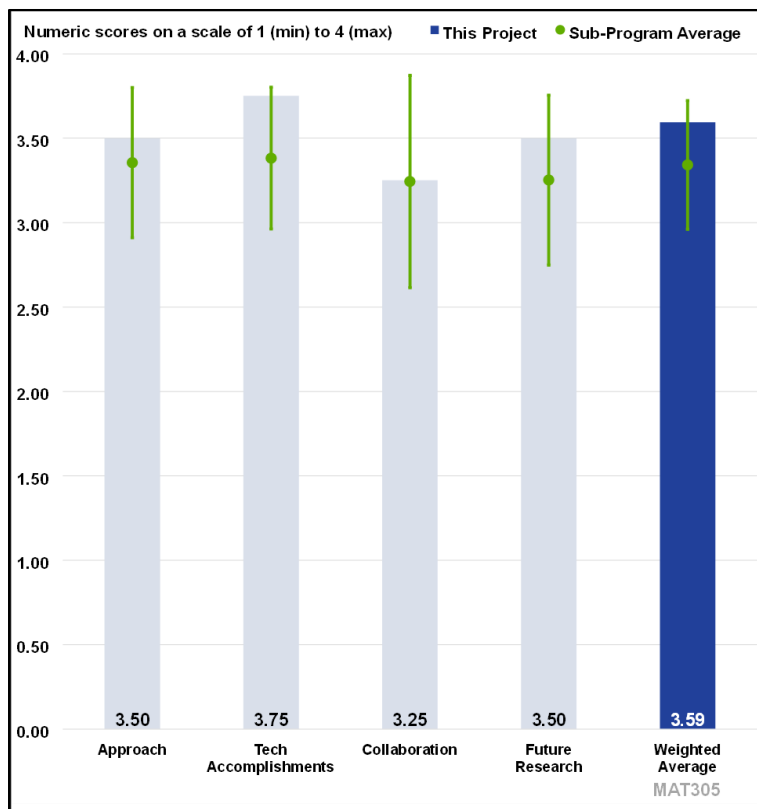


Figure 5-37 - Presentation Number: MAT305 Presentation Title: LMCP 2.0 Task 2E-24 – Upcycling of Secondary LW Alloys Using Additive Manufacturing Principal Investigator: Jovid Rakhmonov, Oak Ridge National Laboratory

Presentation Number:

MAT306

Presentation Title:

LMCP 2.0 Task 3A-A – Thermo-Mechanical Processing Techniques to Enable a Versatile and Recyclable 6xxx Unialloy and LMCP 2.0 Task 3A-B – Formability and Edge Stretchability of Recyclable 6xxx Al Alloys

Principal Investigator:

Mert Efe, Pacific Northwest National Laboratory

Presenter

Mert Efe, Pacific Northwest National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 75% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 25% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT306_Efe_2025_o.pdf

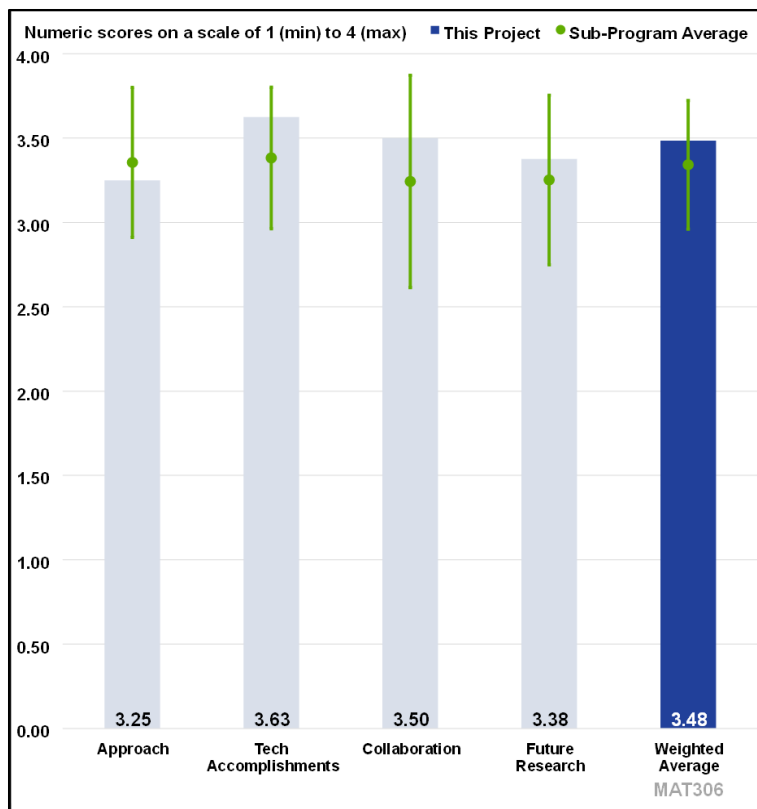


Figure 5-38 - Presentation Number: MAT306 Presentation Title: LMCP 2.0 Task 3A-A – Thermo-Mechanical Processing Techniques to Enable a Versatile and Recyclable 6xxx Unialloy and LMCP 2.0 Task 3A-B – Formability and Edge Stretchability of Recyclable 6xxx Al Alloys Principal Investigator: Mert Efe, Pacific Northwest National Laboratory

Presentation Number:

MAT308

Presentation Title:

LMCP 2.0 Task 3B – Solid Phase Processing of Mg Alloys for Improved Performance

Principal Investigator:

Mageshwari Komarasamy, Pacific Northwest National Laboratory

Presenter

Mageshwari Komarasamy, Pacific Northwest National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT308_Komarasamy_2025_o.pdf

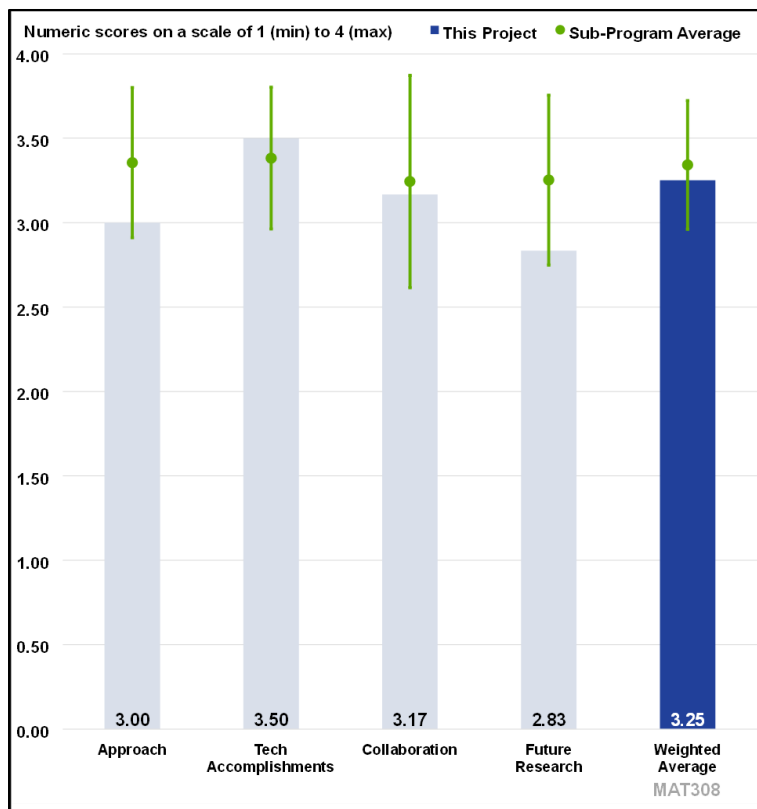


Figure 5-39 - Presentation Number: MAT308 Presentation Title: LMCP 2.0 Task 3B – Solid Phase Processing of Mg Alloys for Improved Performance Principal Investigator: Mageshwari Komarasamy, Pacific Northwest National Laboratory

Presentation Number:

MAT309

Presentation Title:

LMCP 2.0 Task 4A-24 – Scalable Surface Alloyed Coatings on Magnesium High Pressure Die Casting Parts

Principal Investigator:

Vineet V. Joshi, Pacific Northwest National Laboratory

Presenter

Vineet V. Joshi, Pacific Northwest National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT309_Joshi_2025_o.pdf

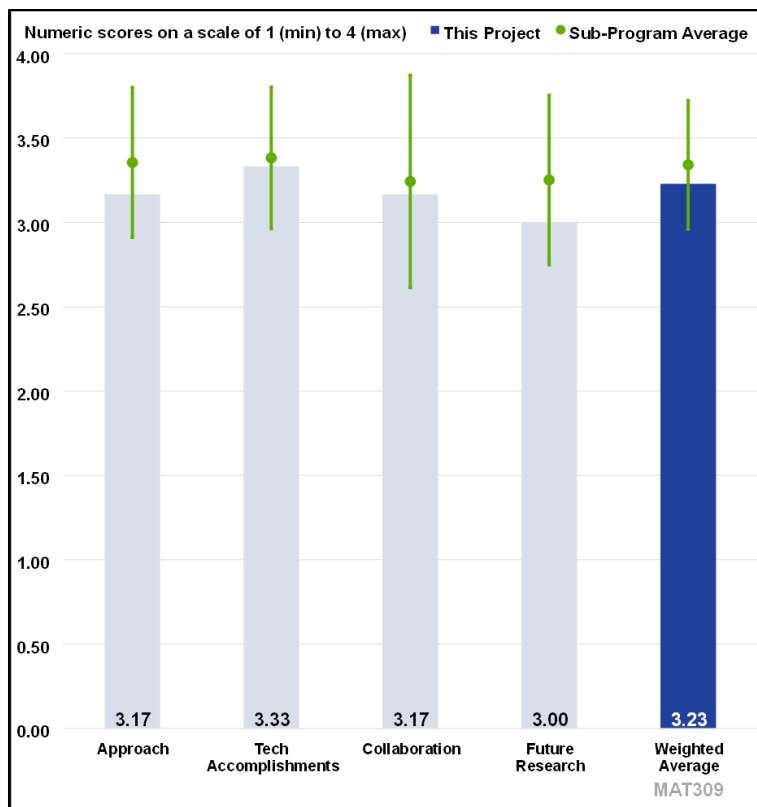


Figure 5-40 - Presentation Number: MAT309 Presentation Title: LMCP 2.0 Task 4A-24 – Scalable Surface Alloyed Coatings on Magnesium High Pressure Die Casting Parts Principal Investigator: Vineet V. Joshi, Pacific Northwest National Laboratory

Presentation Number:

MAT310

Presentation Title:

Zero-Emission Natural Fiber Composites (ZENC) for Fire-Detecting Fireproof EV Battery Enclosure

Principal Investigator:

Maria Feng, Columbia University

Presenter

Maria Feng, Columbia University

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT310_Feng_2025_o.pdf

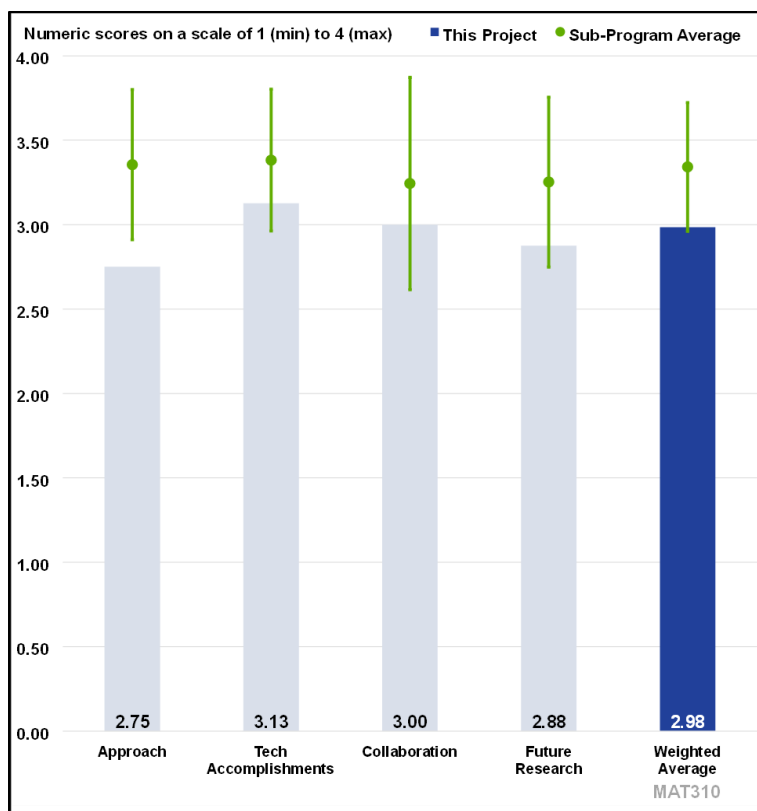


Figure 5-41 - Presentation Number: MAT310 Presentation Title: Zero-Emission Natural Fiber Composites (ZENC) for Fire-Detecting Fireproof EV Battery Enclosure Principal Investigator: Maria Feng, Columbia University

Presentation Number:

MAT311

Presentation Title:

Transforming Carbon Fiber-Reinforced Polymer Wastes into Recyclable Structural Automotive Components

Principal Investigator:

Jinwen Zhang, Washington State University

Presenter

Jinwen Zhang, Washington State University

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT311_Zhang_2025_o.pdf

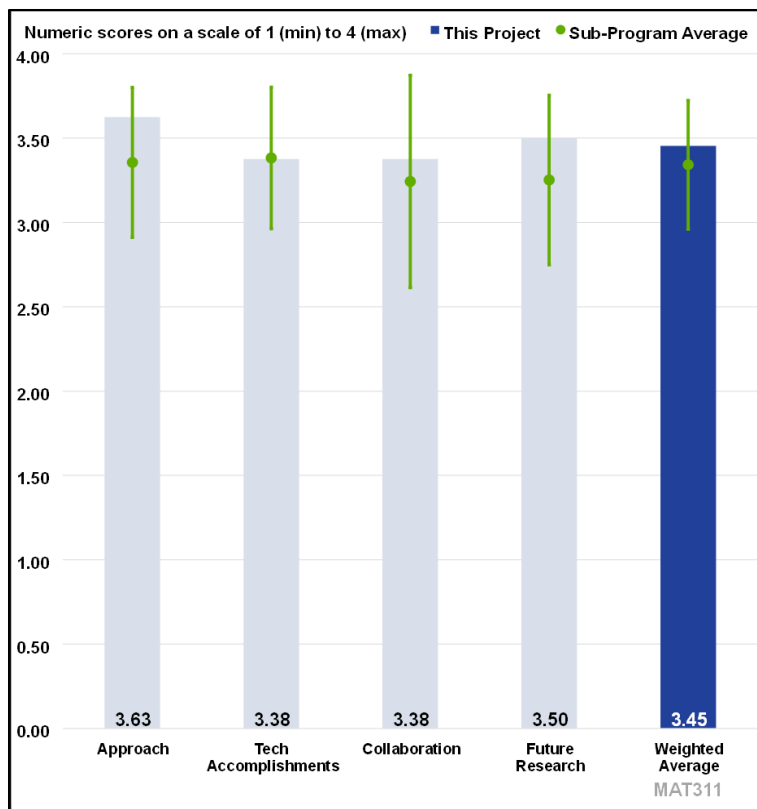


Figure 5-42 - Presentation Number: MAT311 Presentation Title: Transforming Carbon Fiber-Reinforced Polymer Wastes into Recyclable Structural Automotive Components Principal Investigator: Jinwen Zhang, Washington State University

Presentation Number:

MAT312

Presentation Title:

Cost-effective Circular Manufacturing of Lightweight Vehicle Shells and Battery casing by Recyclable-by-Design Polymer Composites

Principal Investigator:

Chen Wang, University of Utah

Presenter

Chen Wang, University of Utah

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

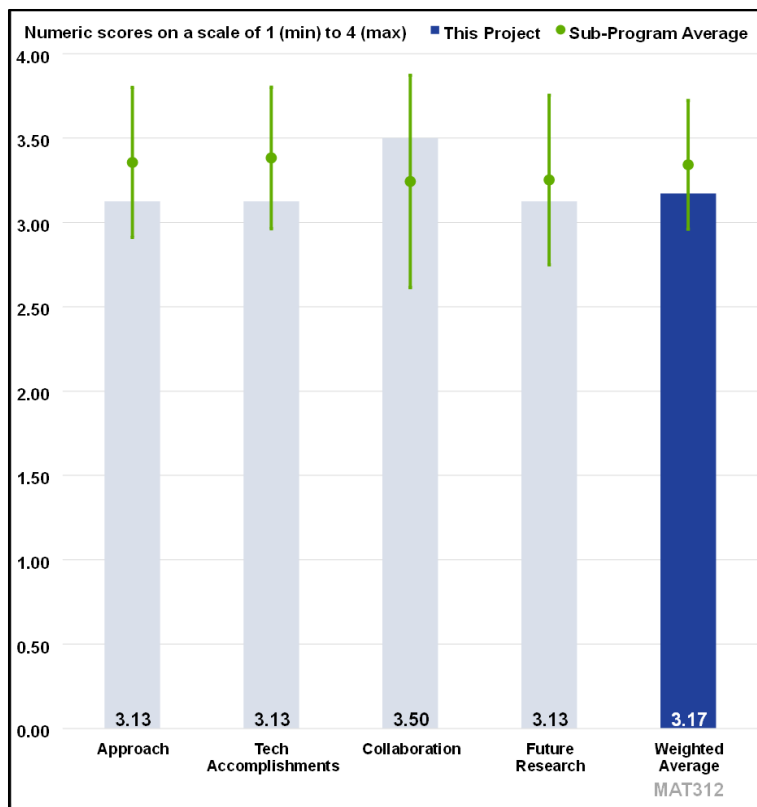


Figure 5-43 - Presentation Number: MAT312 Presentation Title: Cost-effective Circular Manufacturing of Lightweight Vehicle Shells and Battery casing by Recyclable-by-Design Polymer Composites Principal Investigator: Chen Wang, University of Utah

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT312_Wang_2025_o.pdf

Presentation Number:

MAT313

Presentation Title:

Sustainable Circular Manufacturing of Automotive Composites

Principal Investigator:

Jay Keasling, University of California at Berkeley

Presenter

Jay Keasling, University of California at Berkeley

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT313_Keasling_2025_o.pdf

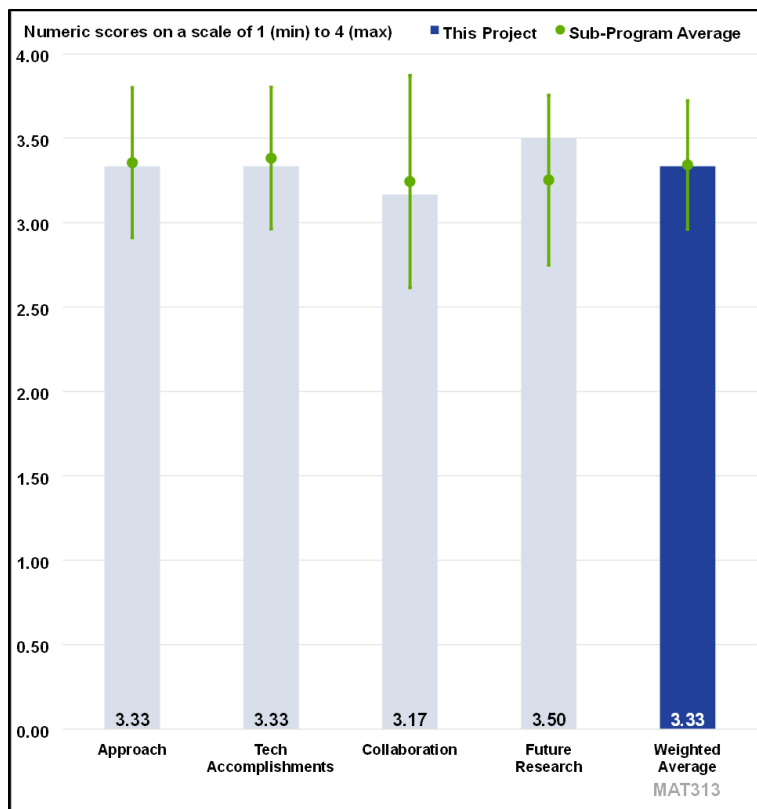


Figure 5-44 - Presentation Number: MAT313 Presentation Title: Sustainable Circular Manufacturing of Automotive Composites Principal Investigator: Jay Keasling, University of California at Berkeley

Presentation Number:

MAT314

Presentation Title:

CCP 2.0, Task 3.1 – Waste Plastics to High-Value Polymers

Principal Investigator:

Daniel Merkel, Pacific Northwest National Laboratory

Presenter

Daniel Merkel, Pacific Northwest National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

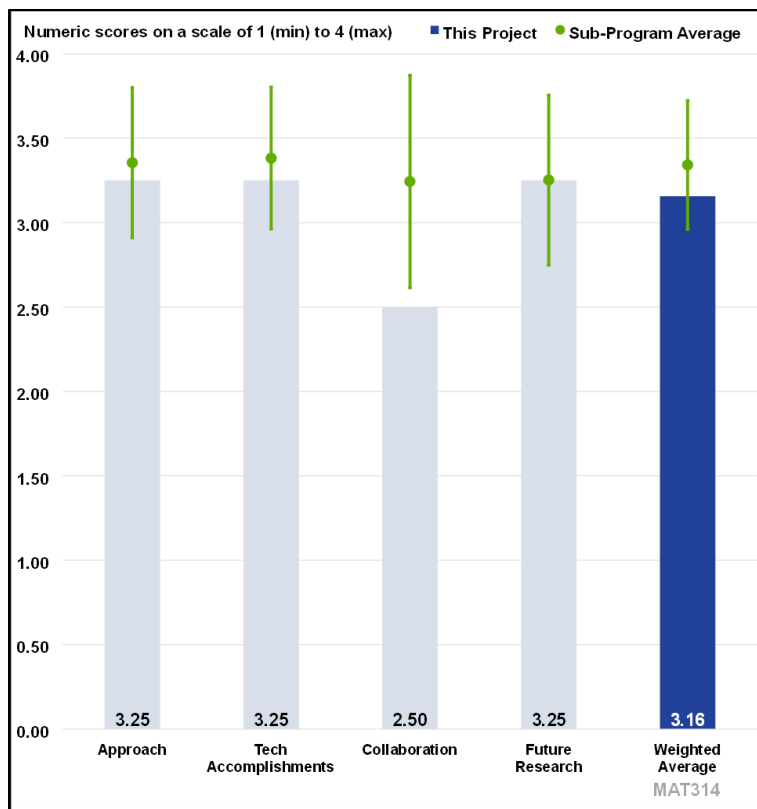


Figure 5-45 - Presentation Number: MAT314 Presentation Title: CCP 2.0, Task 3.1 – Waste Plastics to High-Value Polymers Principal Investigator: Daniel Merkel, Pacific Northwest National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT314_Merkel_2025_o.pdf

Presentation Number:

MAT315

Presentation Title:

CCP 2.0, Task 3.2 – Circular Economy for Unwanted Shredded Automotive Waste (CE-SAW)

Principal Investigator:

Caitlyn Clarkson, Oak Ridge National Laboratory

Presenter

Caitlyn Clarkson, Oak Ridge National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

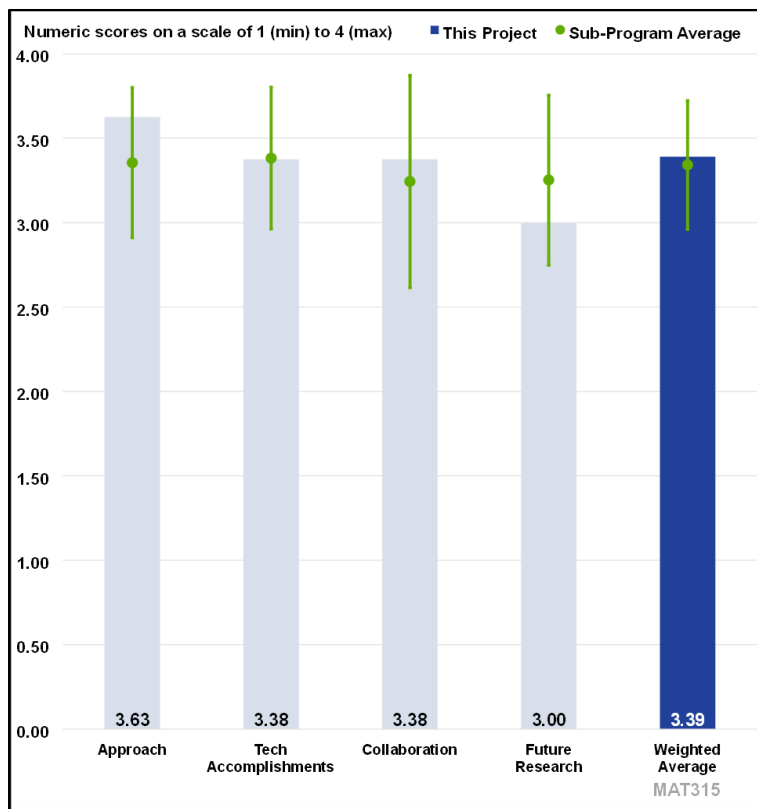


Figure 5-46 - Presentation Number: MAT315 Presentation Title: CCP 2.0, Task 3.2 – Circular Economy for Unwanted Shredded Automotive Waste (CE-SAW) Principal Investigator: Caitlyn Clarkson, Oak Ridge National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT315_Clarkson_2025_o.pdf

Presentation Number:

MAT316

Presentation Title:

CCP 2.0, Task 3.3 – Materials and Manufacturing Innovation for Sustainable Automotive Composites – Bioderivable and Recyclable Composites

Principal Investigator:

Nicholas Rorrer, National Renewable Energy Laboratory

Presenter

Nicholas Rorrer, National Renewable Energy Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT316_Rorrer_2025_o.pdf

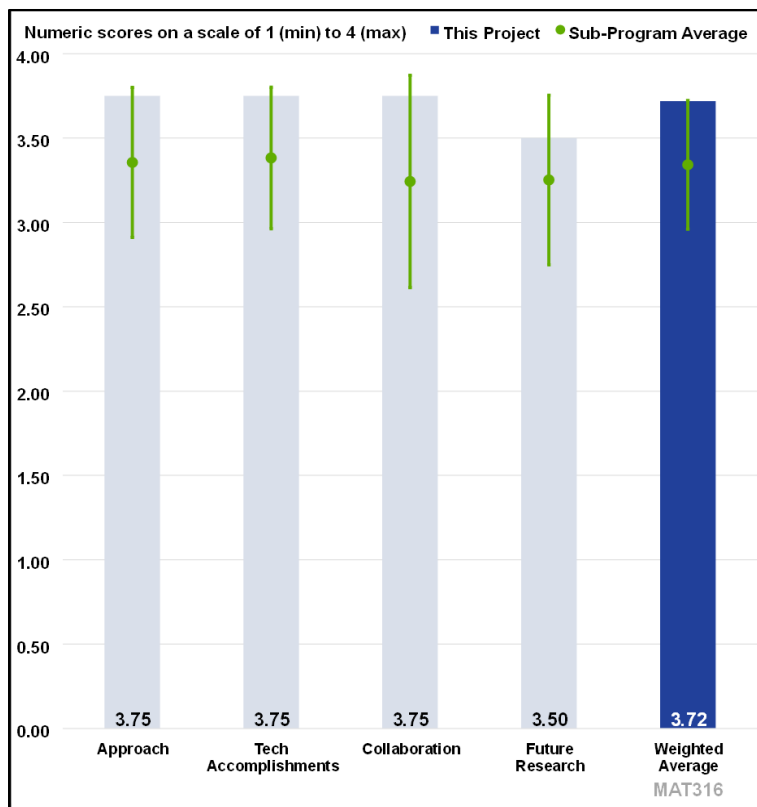


Figure 5-47 - Presentation Number: MAT316 Presentation Title: CCP 2.0, Task 3.3 – Materials and Manufacturing Innovation for Sustainable Automotive Composites – Bioderivable and Recyclable Composites Principal Investigator: Nicholas Rorrer, National Renewable Energy Laboratory

Presentation Number:

MAT317

Presentation Title:

CCP 2.0, Task 3.4 – High Throughput Recycling of Long CF from Cured Thermoset Composites

Principal Investigator:

Wenbin Kuang, Pacific Northwest National Laboratory

Presenter

Wenbin Kuang, Pacific Northwest National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 75% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 25% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT317_Kuang_2025_o.pdf

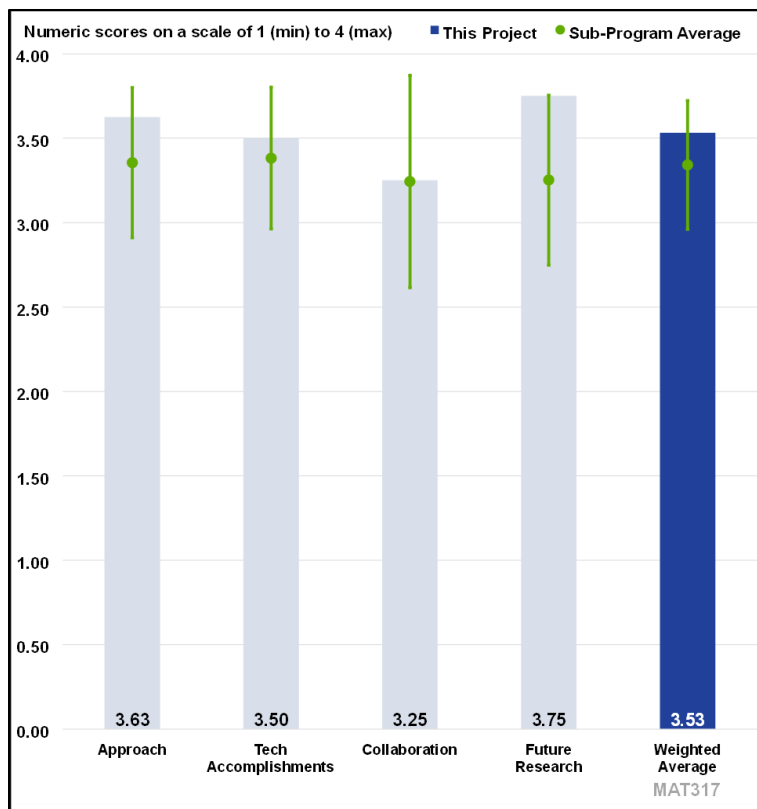


Figure 5-48 - Presentation Number: MAT317 Presentation Title: CCP 2.0, Task 3.4 – High Throughput Recycling of Long CF from Cured Thermoset Composites Principal Investigator: Wenbin Kuang, Pacific Northwest National Laboratory

Presentation Number:

MAT318

Presentation Title:

CCP 2.0, Task 4.3 – Recyclable Cellulose Fiber Reinforced Vitrimer Composites

Principal Investigator:

Amit Naskar, Oak Ridge National Laboratory

Presenter

Amit Naskar, Oak Ridge National Laboratory

Reviewer Sample Size

A total of one reviewer evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

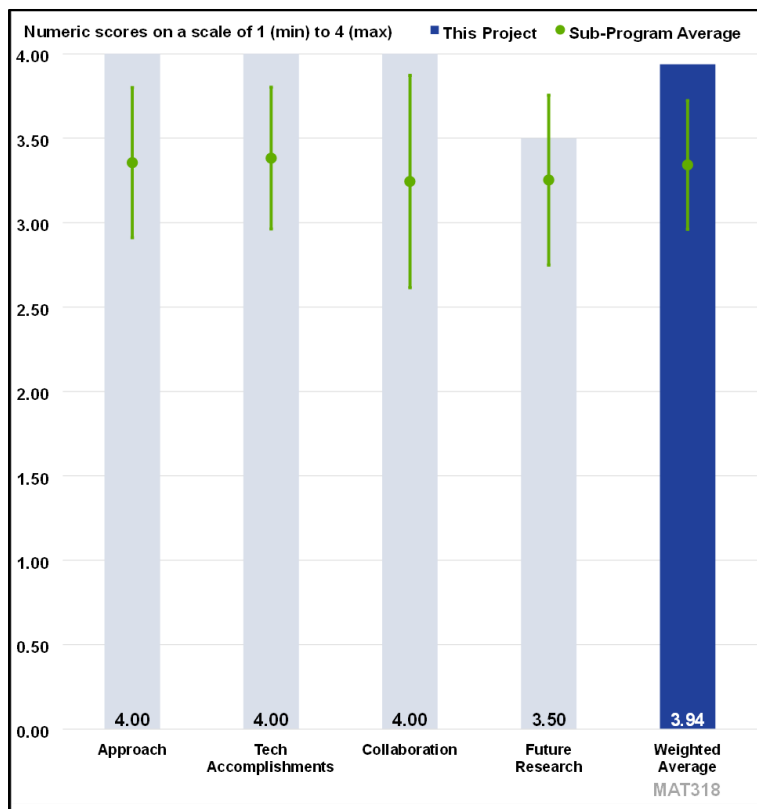


Figure 5-49 - Presentation Number: MAT318 Presentation Title: CCP 2.0, Task 4.3 – Recyclable Cellulose Fiber Reinforced Vitrimer Composites Principal Investigator: Amit Naskar, Oak Ridge National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT318_Naskar_2025_o.pdf

Presentation Number:

MAT319

Presentation Title:

CCP 2.0, Task 4.1 – Precise High-Speed Manufacturing of Thermoplastic Composites Using Additive – Compression Molding (AM-CM)

Principal Investigator:

Vipin Kumar, Oak Ridge National Laboratory

Presenter

Vipin Kumar, Oak Ridge National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT319_Kumar_2025_o.pdf

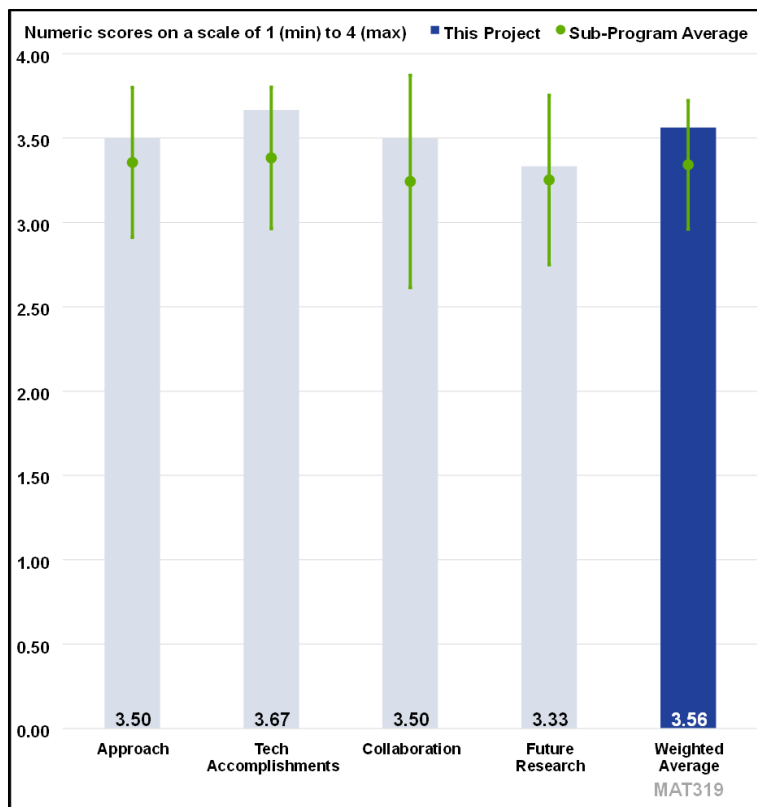


Figure 5-50 - Presentation Number: MAT319 Presentation Title: CCP 2.0, Task 4.1 – Precise High-Speed Manufacturing of Thermoplastic Composites Using Additive – Compression Molding (AM-CM) Principal Investigator: Vipin Kumar, Oak Ridge National Laboratory

Presentation Number:

MAT320

Presentation Title:

CCP 2.0, Task 4.2 – Designing and Manufacturing Adaptable Large-scale Hierarchical Materials with Tailorable Toughness

Principal Investigator:

Seokpum Kim, Oak Ridge National Laboratory

Presenter

Seokpum Kim, Oak Ridge National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT320_Naskar_2025_o.pdf

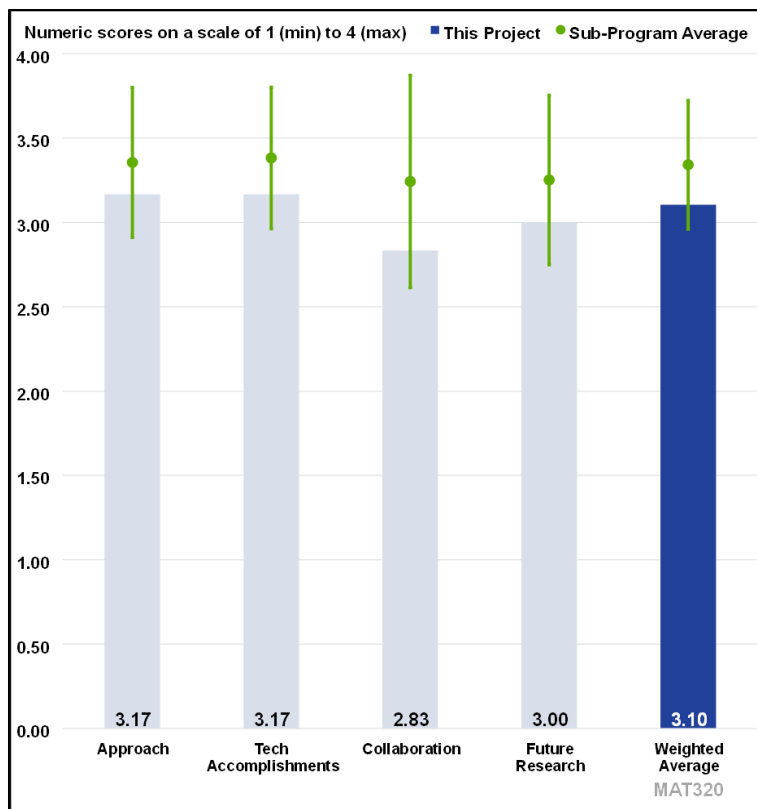


Figure 5-51 - Presentation Number: MAT320 Presentation Title: CCP 2.0, Task 4.2 – Designing and Manufacturing Adaptable Large-scale Hierarchical Materials with Tailorable Toughness Principal Investigator: Seokpum Kim, Oak Ridge National Laboratory

Presentation Number:

MAT321

Presentation Title:

Bio-Inspired High-Performance 3D Printed Carbon Composite with Sensing: Surface Modification and AI/ML Approaches

Principal Investigator:

Rigoberto Advincula, Oak Ridge National Laboratory

Presenter

Rigoberto Advincula, Oak Ridge National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 67% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 33% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT321_Advincula_2025_o.pdf

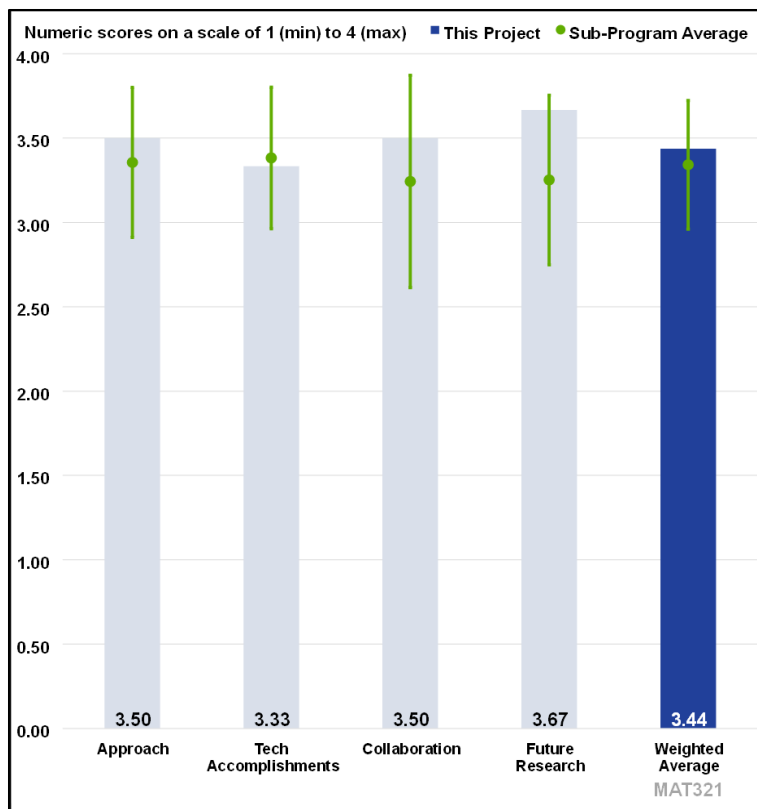


Figure 5-52 - Presentation Number: MAT321 Presentation Title: Bio-Inspired High-Performance 3D Printed Carbon Composite with Sensing: Surface Modification and AI/ML Approaches Principal Investigator: Rigoberto Advincula, Oak Ridge National Laboratory

Presentation Number:

MAT322

Presentation Title:

Printable Creep-Resistant
Lightweight Conductors

Principal Investigator:

Alex Plotkowski, Oak Ridge
National Laboratory

Presenter

Jovid Rakhmonov, Oak Ridge
National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated
this project.

Project Relevance and Resources

100% of reviewers felt that the
project was relevant to current DOE
objectives, 0% of reviewers felt that
the project was not relevant, and
0% of reviewers did not indicate an
answer. 100% of reviewers felt that
the resources were sufficient, 0% of
reviewers felt that the resources
were insufficient, 0% of reviewers
felt that the resources were
excessive, and 0% of reviewers did
not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT322_Rakhmonov_2025_o.pdf

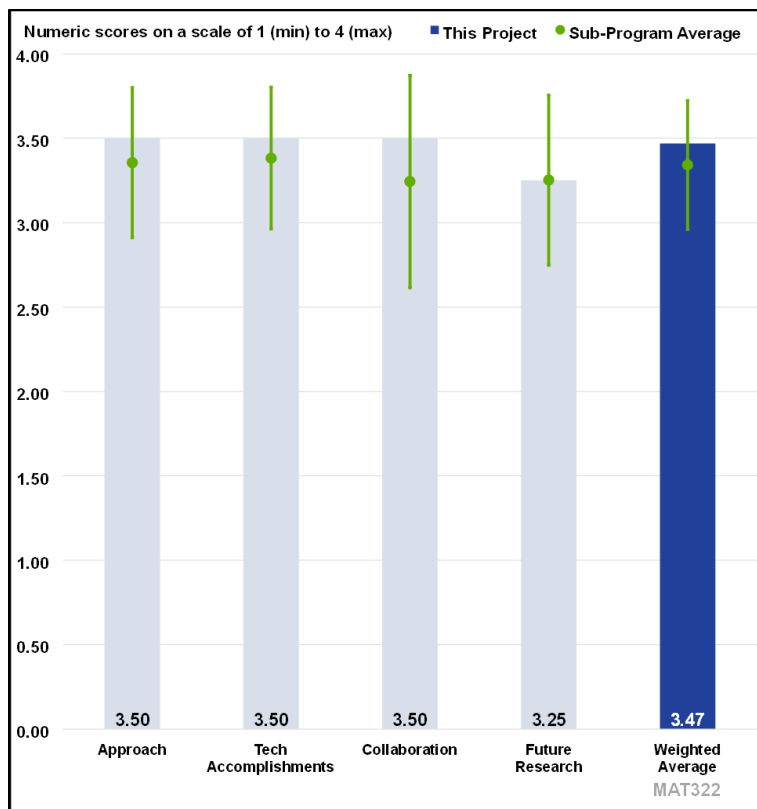


Figure 5-53 - Presentation Number: MAT322 Presentation Title: Printable Creep-Resistant Lightweight Conductors Principal Investigator: Alex Plotkowski, Oak Ridge National Laboratory

Presentation Number:

MAT323

Presentation Title:

CCP 2.0, Task 1.6 – Natural Fiber Composites with Low Carbon Resin Matrix

Principal Investigator:

Wenbin Kuang, Pacific Northwest National Laboratory

Presenter

Wenbin Kuang, Pacific Northwest National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 67% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 33% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT323_Kuang_2025_p.pdf

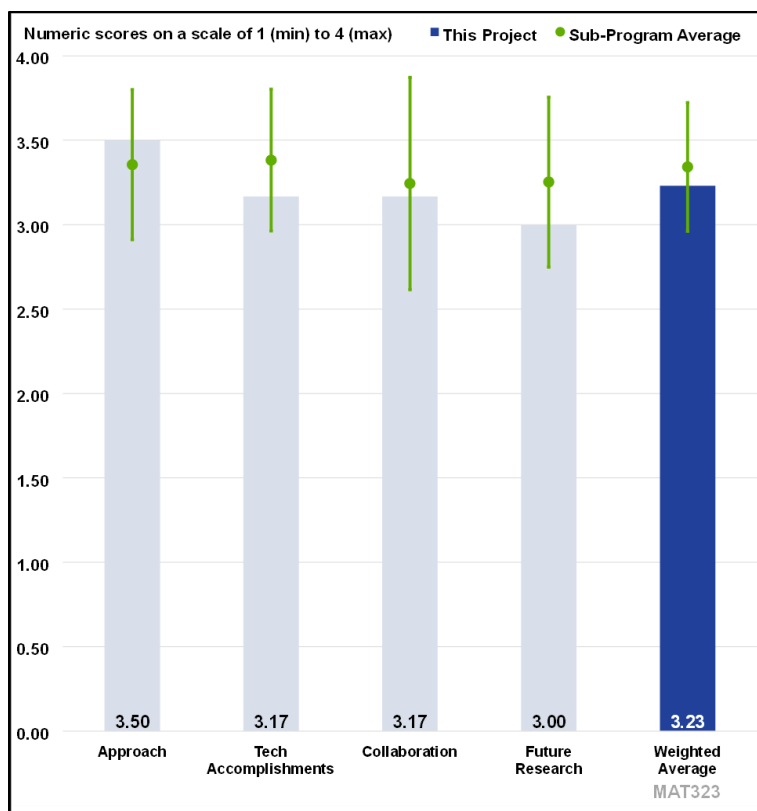


Figure 5-54 - Presentation Number: MAT323 Presentation Title: CCP 2.0, Task 1.6 – Natural Fiber Composites with Low Carbon Resin Matrix Principal Investigator: Wenbin Kuang, Pacific Northwest National Laboratory

Presentation Number:

MAT324

Presentation Title:

CCP 2.0, Task 2.5 – Electrospun Nanofiber Networks for Multifunctional Composites

Principal Investigator:

Christopher Bowland, Oak Ridge National Laboratory

Presenter

Sumit Gupta, Oak Ridge National Laboratory

Reviewer Sample Size

A total of one reviewer evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT324_Bowland_2025_p.pdf

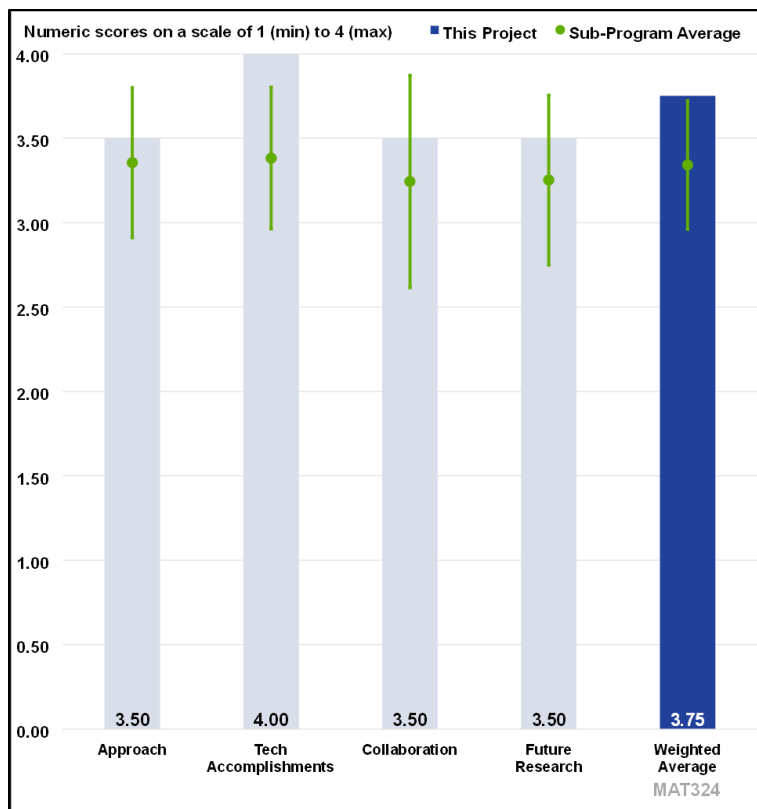


Figure 5-55 - Presentation Number: MAT324 Presentation Title: CCP 2.0, Task 2.5 – Electrospun Nanofiber Networks for Multifunctional Composites Principal Investigator: Christopher Bowland, Oak Ridge National Laboratory

Presentation Number:

MAT325

Presentation Title:

CCP 2.0, Task 2.6 – Sensing and Fatigue Behavior Characterization of Multifunctional Composites

Principal Investigator:

Maria Feng, Columbia University

Presenter

Tymon Nieduzak, Columbia University

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

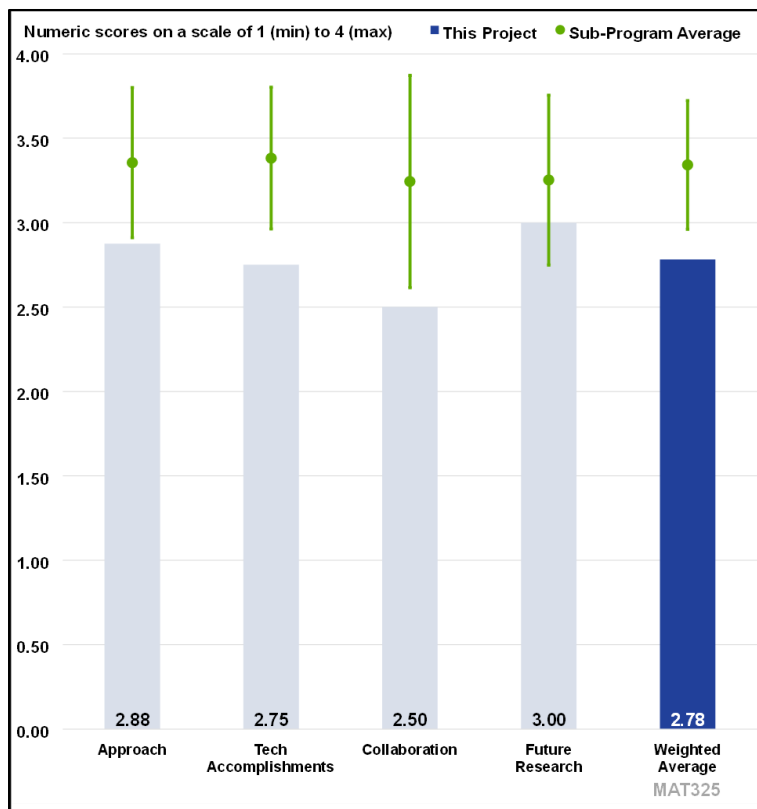


Figure 5-56 - Presentation Number: MAT325 Presentation Title: CCP 2.0, Task 2.6 – Sensing and Fatigue Behavior Characterization of Multifunctional Composites Principal Investigator: Maria Feng, Columbia University

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT325_Feng_2025_p.pdf

Presentation Number:

MAT326

Presentation Title:

CCP 2.0, Task 4.4 – 3D Printing of High-Fidelity Heteroatom Containing Functional Carbons for Thermal Management

Principal Investigator:

Joshua Damron, Oak Ridge National Laboratory

Presenter

Joshua Damron, Oak Ridge National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT326_Damron_2025_p.pdf

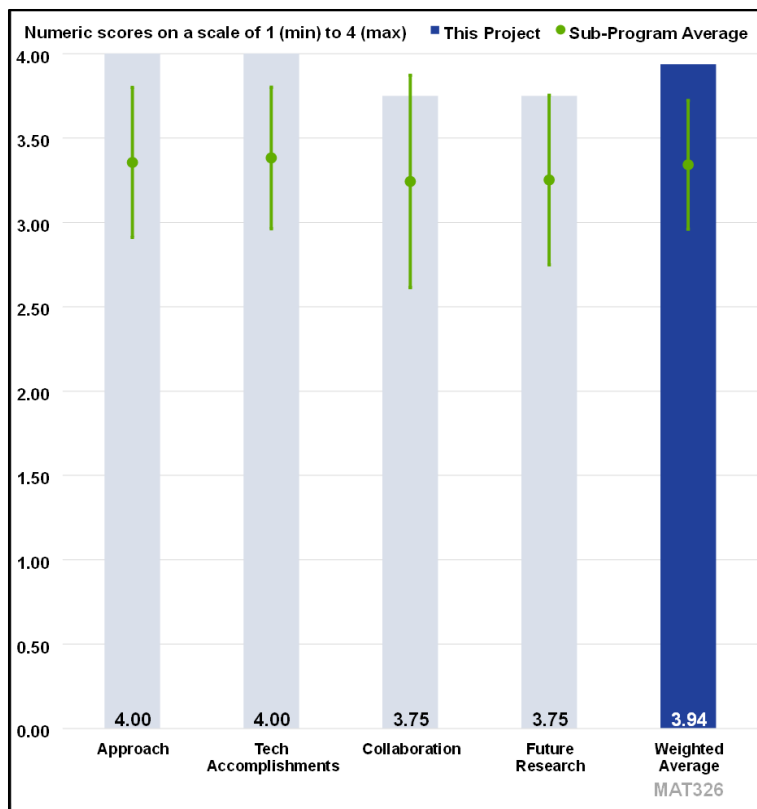


Figure 5-57 - Presentation Number: MAT326 Presentation Title: CCP 2.0, Task 4.4 – 3D Printing of High-Fidelity Heteroatom Containing Functional Carbons for Thermal Management Principal Investigator: Joshua Damron, Oak Ridge National Laboratory

Presentation Number:

MAT340

Presentation Title:

CCP 2.0, Task 1.1 – Synthesis and Melt Spinning of Renewable Pitch for Low-Cost Carbon Fiber Precursor

Principal Investigator:

Michael Toomey, Oak Ridge National Laboratory

Presenter

Michael Toomey, Oak Ridge National Laboratory

Reviewer Sample Size

A total of one reviewer evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/MAT340_Toomey_2025_p.pdf

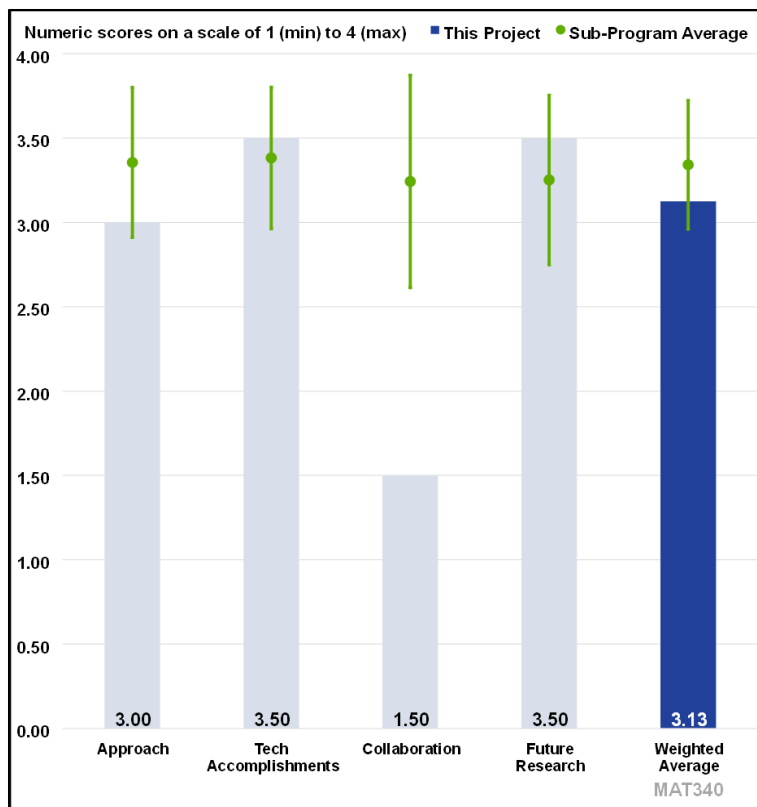


Figure 5-58 - Presentation Number: MAT340 Presentation Title: CCP 2.0, Task 1.1 – Synthesis and Melt Spinning of Renewable Pitch for Low-Cost Carbon Fiber Precursor Principal Investigator: Michael Toomey, Oak Ridge National Laboratory

6. Technology Integration

The Vehicle Technologies Office (VTO) funds research and development (R&D) of engines, batteries, power electronics, motors, materials, and transportation systems. VTO leverages the unique capabilities and world-class expertise of the national laboratory system to innovate new vehicle technologies. VTO is uniquely positioned to accelerate innovative transportation technologies due to strategic public-private research partnerships with industry (e.g., the U.S. DRIVE Partnership, the 21st Century Truck Partnership) that leverage relevant expertise. These partnerships prevent duplication of effort, focus U.S. Department of Energy (DOE) research on critical R&D barriers, and accelerate progress.

VTO's Technology Integration (TI) program supports a broad technology portfolio that includes alternative fuels, energy efficient mobility systems and technologies, and other efficient advanced technologies that can reduce transportation energy costs for businesses and consumers. The program provides objective, unbiased data and real-world lessons learned to inform future research needs and support local decision making. It also includes projects to disseminate data, information, and insight, as well as online tools and technology assistance to cities and regions working to implement alternative fuels and energy efficient mobility technologies and systems.

The TI goals are to strengthen national security through fuel diversity and the use of domestic fuel sources, reduce transportation energy costs for businesses and consumers, and enable energy resiliency with affordable alternatives to conventional fuels that may face unusually high demand in emergency situations.

Clean Cities and Communities (CC&C) is a DOE partnership within the Vehicle Technologies Office (VTO) Technology Integration (TI) Program. Clean Cities and Communities coalitions serve as “living labs” for the VTO community by validating data, technologies, and systems to identify technology gaps, lessons learned, and critical improvements needed. This feedback is critically important for informing future research needs related to vehicles, infrastructure, and unforeseen end-use complications.

Project Feedback

In this merit review activity, each reviewer was asked to respond to a series of questions, involving multiple-choice responses, expository responses where text comments were requested, and numeric score responses (on a scale of 1.0 to 4.0). In the pages that follow, the multiple choice and numeric score questions will be presented in graph form for each project. A table presenting the average numeric score for each question for each project is presented below.

Table 6-1 – Project Feedback

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Objectives	Approach	Accomplishments	Collaboration	Weighted Average
TI159	First to Last Mile: Creating an Integrated Goods Movement Charging Network Around the I-710 Corridor†	Jack Symington (Los Angeles Cleantech Incubator)	6-8	3.50	3.50	3.25	3.50	3.40
TI160	Northeast Electric Highways Study†	Pedro Jardim (National Grid USA Service Company Inc.)	6-9	3.67	3.50	3.33	3.33	3.46
TI161	MD-HD ZEV Infrastructure Planning with Focus on I-80 Midwest (IN-IL-OH) Corridor†	Daniel O'Connor (Cummins Inc.)	6-10	3.33	3.50	3.33	3.50	3.39
TI163	Houston to Los Angeles (H2LA) – Interstate 10 (I-10) Hydrogen Corridor Plan†	Bart Sowa (Gas Technology Institute)	6-11	3.33	3.17	3.17	3.67	3.26
TI166	Advanced Vehicle Technology Competitions – EcoCAR	Jesse Alley (Argonne National Laboratory)	6-12	3.50	3.88	3.75	3.88	3.73

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Objectives	Approach	Accomplishments	Collaboration	Weighted Average
TI167	Advanced Vehicle Technology Competitions – Battery Workforce Challenge	Ajay Gnanasekaran (Argonne National Laboratory)	6-13	3.50	4.00	3.83	3.67	3.78
TI168	South San Joaquin Valley Zero Emissions Vehicle Talent Pipeline	David Teasdale (Kern Community College District)	6-14	3.63	3.38	3.50	3.50	3.50
TI169	GUMBO: Guaranteeing Access to Underserved and Marginalized Populations by Building Employment Opportunities	Ann Vail (Louisiana Clean Fuels)	6-15	3.63	3.75	3.38	3.63	3.56
TI170	Boat Energy Transition Accelerator	Chandler Kemp (Alaska Longline Fishermen's Association)	6-16	3.38	3.50	3.38	3.38	3.41
TI173	Logistics Decarbonization in Strategic Areas (LODESTAR)	Matthew Wade (Virginia Clean Cities)	6-17	3.50	2.67	2.00	2.67	2.61
TI175	Multimodal/Drone Delivery Demonstration to Communities and Mobility Challenged Populations	Alicia Winkelblech (City of Arlington, Texas)	6-18	3.67	3.67	3.67	3.00	3.60

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Objectives	Approach	Accomplishments	Collaboration	Weighted Average
TI176	DRIVE Electric USA 2	Jonathan Overly (East Tennessee Clean Fuels Coalition)	6-19	3.50	3.25	3.25	3.50	3.34
TI177	A Utility-Scale Plan for Accelerating the Deployment of Multi-Family EV Charging Infrastructure	Ann Xu (ElectroTempo, Inc.)	6-20	3.17	3.17	3.33	3.33	3.25
TI178	Expanding Access to Charging at Home (EACH) Program	Prateek Suri (Forth Mobility)	6-21	3.25	3.50	3.25	3.50	3.34
TI179	Supporting Transportation Electrification – Leadership, Learning, Assistance, and Resources (STELLAR)	Jon Hunter (American Lung Association)	6-22	3.50	3.50	3.25	4.00	3.45
TI180	Assuring Equitable Access and Building Technical Capacity for Transportation Decarbonization among Native Nations in Washington, Oregon, Idaho, and Montana	James Jensen (Washington State University)	6-23	3.50	3.17	2.67	3.17	3.05

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Objectives	Approach	Accomplishments	Collaboration	Weighted Average
TI181	Accelerating Transportation Decarbonization with Underserved Communities in California's Central Coast and South Bay Regions	Sean McArthur (Community Environmental Council)	6-24	3.67	3.33	3.17	3.17	3.33
TI182	Community-Driven Transportation Plans for the Northeast	Michael Anderson (Northeast Energy Efficiency Partnerships, Inc.)	6-25	3.17	3.00	3.33	3.17	3.19
TI183	Michigan's Vehicle Technology Transition Impact Project (MiVTTP)	Ashlee Breitner (University of Michigan)	6-26	3.33	3.67	3.00	3.67	3.32
TI184	Colorado Clean Mobility Strategic Planning	Robyn Marquis (CALSTART)	6-27	3.25	3.00	2.63	3.25	2.94
TI185	Advancing Access to EVs, Infrastructure, and Jobs in Communities	Stan Cross (Southern Alliance for Clean Energy)	6-28	3.50	3.25	3.50	4.00	3.49
TI186	The Bronx is Breathing: Reimagining a Cleaner Hunts Point	Joy Gardner (Empire Clean Cities)	6-29	3.75	3.63	3.63	3.63	3.66
TI187	Expanding Regional EVSE Access with Tribal Nations Based on Community Priorities	Robert Blake (Native Sun Community Power Development)	6-30	3.75	3.88	3.50	3.63	3.67

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Objectives	Approach	Accomplishments	Collaboration	Weighted Average
TI188	Engaging Neighbors about Electric Vehicles in Underserved Places (EVEN-UP)	Rich Myhre (Frontier Energy)	6-31	3.50	3.50	3.25	4.00	3.45
TI189	Charged by Public Power - Community Voices & Community Choice	Alice Havenar-Daughton (Marin Clean Energy)	6-32	3.50	3.75	3.00	3.25	3.34
TI190	Organizing and Supporting Under-Served Communities to Design, Implement, and Use EV Charging Infrastructure	Jon Hunter (Minnesota Clean Cities Coalition)	6-33	3.75	3.50	3.25	3.50	3.46
TI191	Alaska Rural EVSE Deployment	Josephine Hartley (Alaska Energy Authority)	6-34	3.33	3.50	3.00	3.50	3.26
TI192	Demonstration and Deployment – Electric Construction Vehicles	Colton Brown (Bureau of Public Transportation State of Pennsylvania)	6-35	3.33	3.17	3.33	3.17	3.28
TI193	De-ICEing: Battery Electric Salt/Snowplow	Russ Zukouski (International Motors, LLC)	6-36	3.13	2.75	2.50	2.25	2.69
TI194	Outreach, Education and Training on Equitable Electric School Bus Adoption: Clean Cities Coalition Electric School Bus Academies	Brittany Barrett (World Resources Institute)	6-37	3.50	3.50	3.50	3.50	3.50

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Objectives	Approach	Accomplishments	Collaboration	Weighted Average
TI195	Realizing Equity and Electrification for Fleets ('Project REEF')	Lynette Sapienza (Dome Partnership)	6-38	3.50	3.50	4.00	3.50	3.70
TI196	Zero Emission Truck Roadshow	Joshua York (CALSTART)	6-39	3.17	3.33	3.00	3.00	3.13
Overall Average				3.46	3.42	3.25	3.42	3.36

† Denotes a poster presentation.

Presentation Number:

TI159

Presentation Title:

First to Last Mile: Creating an Integrated Goods Movement Charging Network Around the I-710 Corridor

Principal Investigator:

Jack Symington, Los Angeles
Cleantech Incubator

Presenter

Jack Symington, Los Angeles
Cleantech Incubator

Reviewer Sample Size

A total of two reviewers evaluated this project.

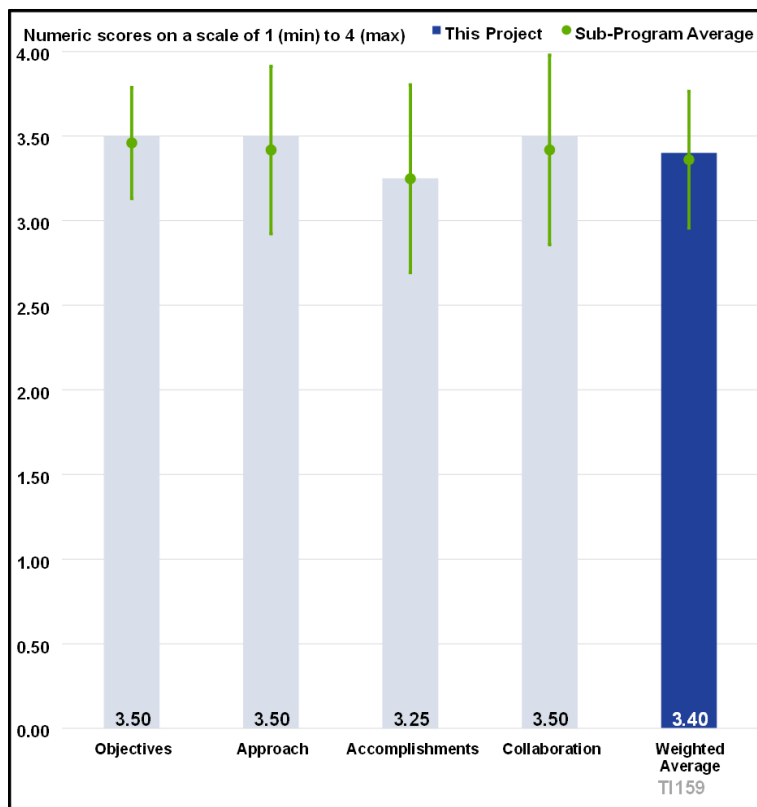


Figure 6-1 - Presentation Number: TI159 Presentation Title: First to Last Mile: Creating an Integrated Goods Movement Charging Network Around the I-710 Corridor Principal Investigator: Jack Symington, Los Angeles Cleantech Incubator

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI159_Symington_2025_p.pdf

Presentation Number:

TI160

Presentation Title:

Northeast Electric Highways Study

Principal Investigator:

Pedro Jardim, National Grid USA
Service Company Inc.

Presenter

Charlotte Fagan, National Grid USA
Service Company Inc.

Reviewer Sample Size

A total of three reviewers evaluated
this project.

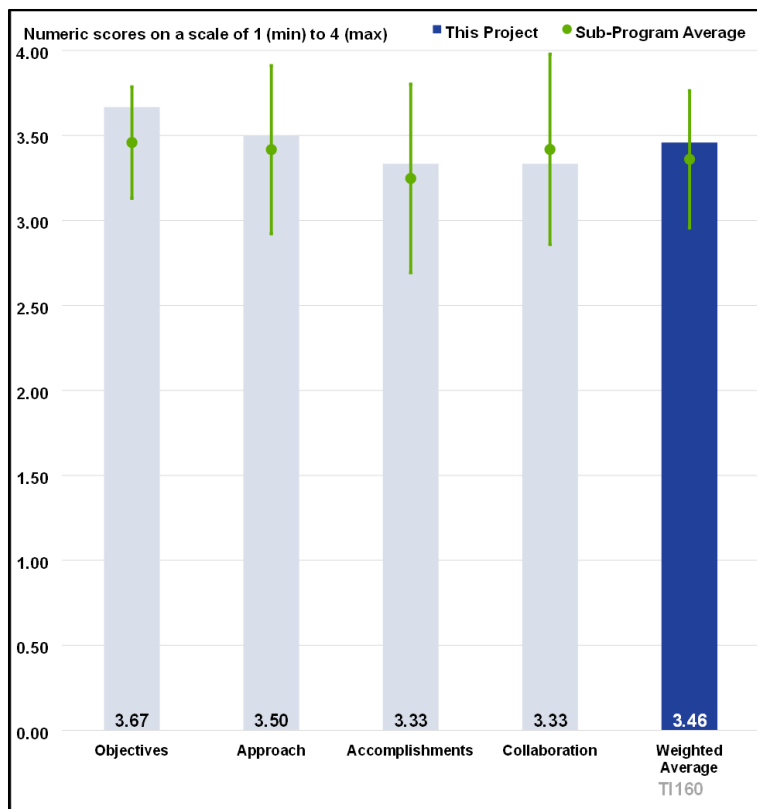


Figure 6-2 - Presentation Number: TI160 Presentation Title:
Northeast Electric Highways Study Principal Investigator:
Pedro Jardim, National Grid USA Service Company Inc.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI160_Wilkie_Jardim_2025_p.pdf

Presentation Number:

TI161

Presentation Title:

MD-HD ZEV Infrastructure Planning with Focus on I-80 Midwest (IN-IL-OH) Corridor

Principal Investigator:

Daniel O'Connor, Cummins Inc.

Presenter

Daniel O'Connor, Cummins Inc.

Reviewer Sample Size

A total of three reviewers evaluated this project.

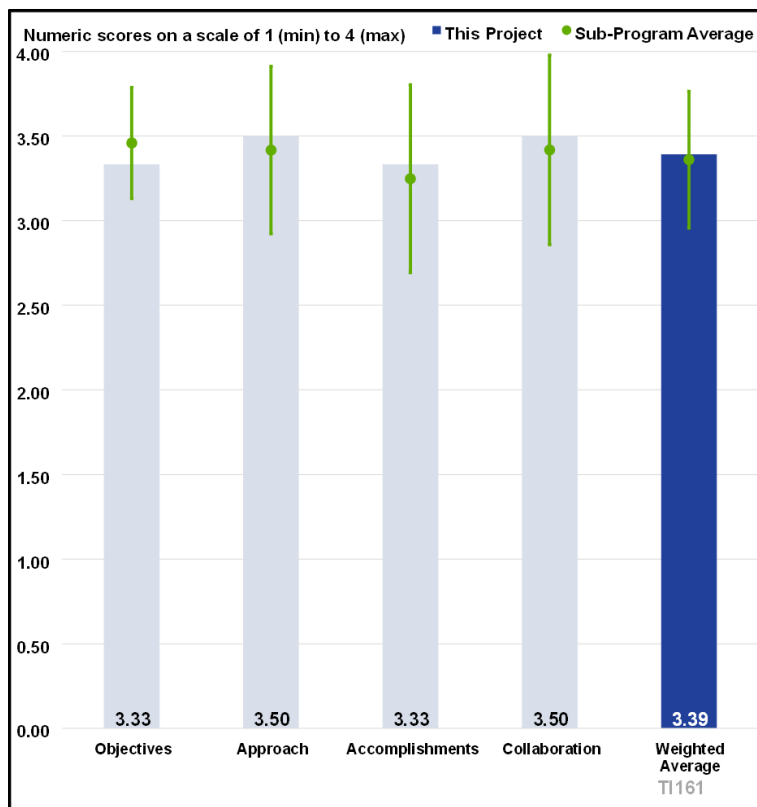


Figure 6-3 - Presentation Number: TI161 Presentation Title: MD-HD ZEV Infrastructure Planning with Focus on I-80 Midwest (IN-IL-OH) Corridor Principal Investigator: Daniel O'Connor, Cummins Inc.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI161_O'Connor_2025_p.pdf

Presentation Number:

TI163

Presentation Title:

Houston to Los Angeles (H2LA) –
Interstate 10 (I-10) Hydrogen
Corridor Plan

Principal Investigator:

Bart Sowa, Gas Technology
Institute

Presenter

Bart Sowa, Gas Technology
Institute

Reviewer Sample Size

A total of three reviewers evaluated
this project.

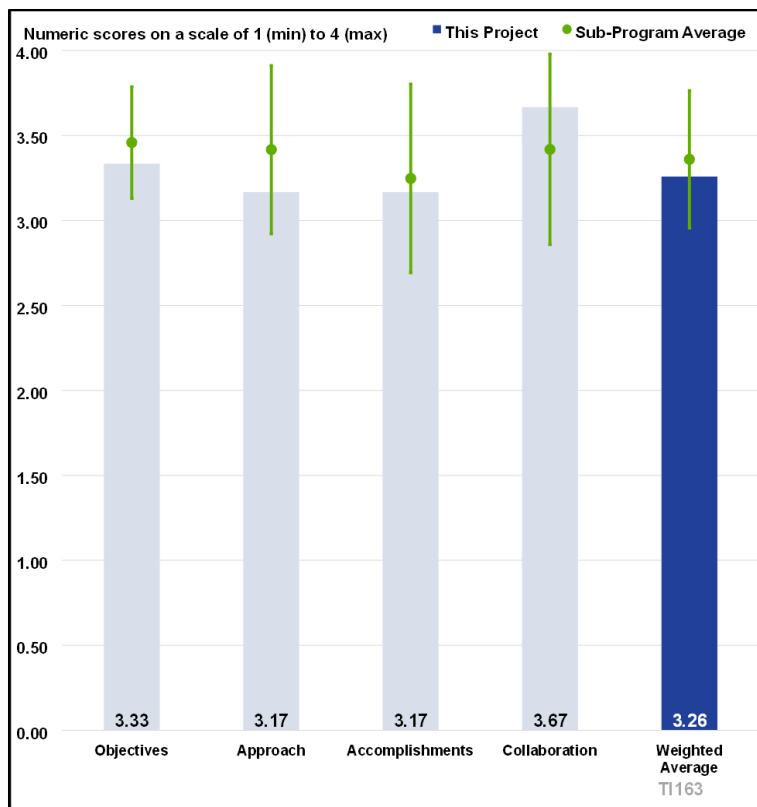


Figure 6-4 - Presentation Number: TI163 Presentation Title:
Houston to Los Angeles (H2LA) - Interstate 10 (I-10) Hydrogen
Corridor Plan Principal Investigator: Bart Sowa, Gas
Technology Institute

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI163_Sowa_2025_p.pdf

Presentation Number:

TI166

Presentation Title:

Advanced Vehicle Technology Competitions – EcoCAR

Principal Investigator:

Jesse Alley, Argonne National Laboratory

Presenter

Kristen Wahl, Argonne National Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

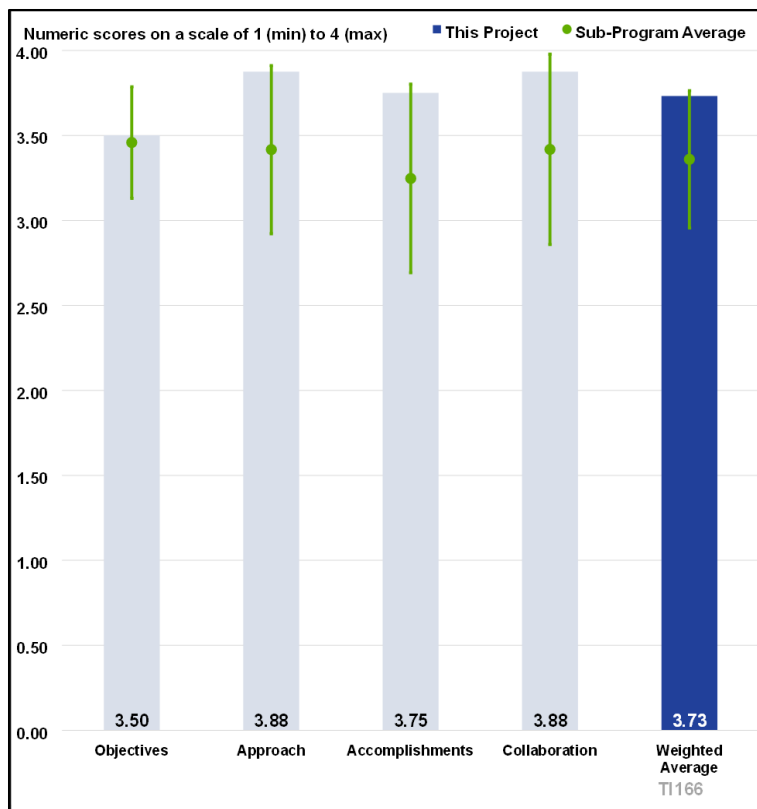


Figure 6-5 - Presentation Number: TI166 Presentation Title:
Advanced Vehicle Technology Competitions – EcoCAR
Principal Investigator: Jesse Alley, Argonne National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI166_Alley_2025_o.pdf

Presentation Number:

TI167

Presentation Title:

Advanced Vehicle Technology Competitions – Battery Workforce Challenge

Principal Investigator:

Ajay Gnanasekaran, Argonne National Laboratory

Presenter

Ajay Gnanasekaran, Argonne National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

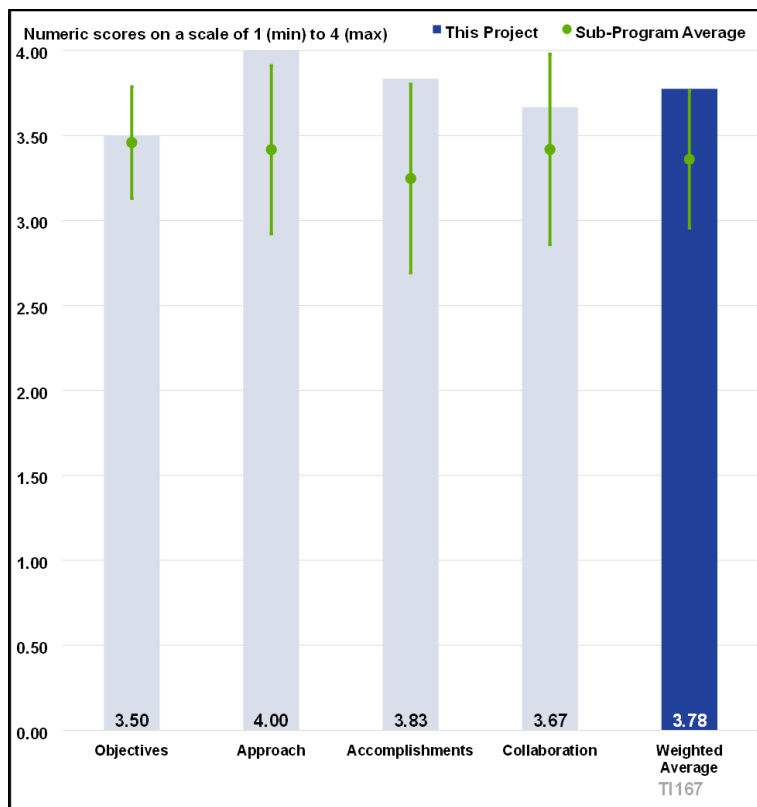


Figure 6-6 - Presentation Number: TI167 Presentation Title:
Advanced Vehicle Technology Competitions – Battery
Workforce Challenge Principal Investigator: Ajay
Gnanasekaran, Argonne National Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI167_Gnanasekaran_2025_o.pdf

Presentation Number:

TI168

Presentation Title:

South San Joaquin Valley Zero Emissions Vehicle Talent Pipeline

Principal Investigator:

David Teasdale, Kern Community College District

Presenter

David Teasdale, Kern Community College District

Reviewer Sample Size

A total of four reviewers evaluated this project.

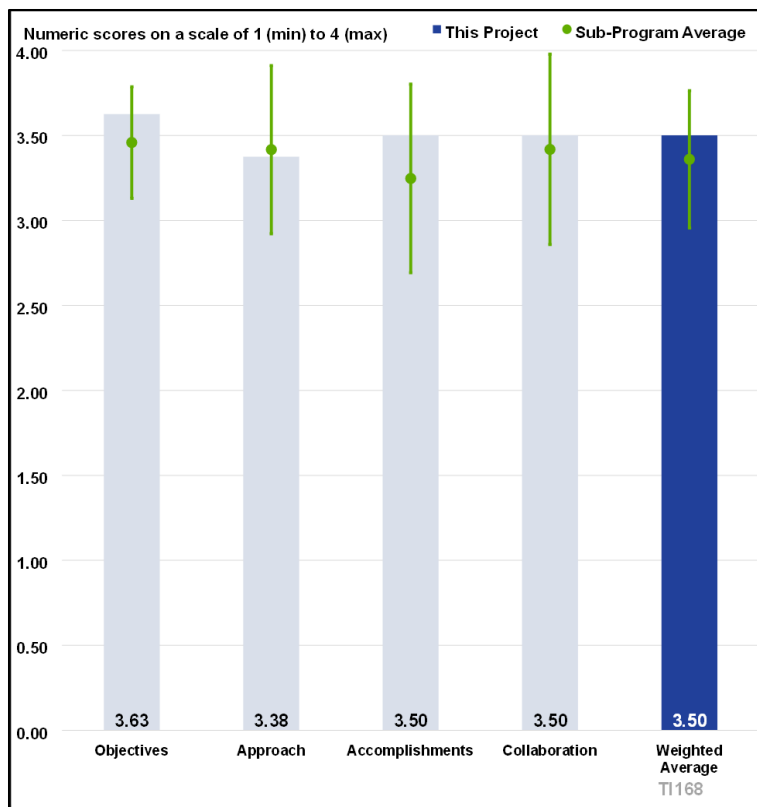


Figure 6-7 - Presentation Number: TI168 Presentation Title: South San Joaquin Valley Zero Emissions Vehicle Talent Pipeline Principal Investigator: David Teasdale, Kern Community College District

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI168_Teasdale_2025_o.pdf

Presentation Number:

TI169

Presentation Title:

GUMBO: Guaranteeing Access to Underserved and Marginalized Populations by Building Employment Opportunities

Principal Investigator:

Ann Vail, Louisiana Clean Fuels

Presenter

Ann Vail, Louisiana Clean Fuels

Reviewer Sample Size

A total of four reviewers evaluated this project.

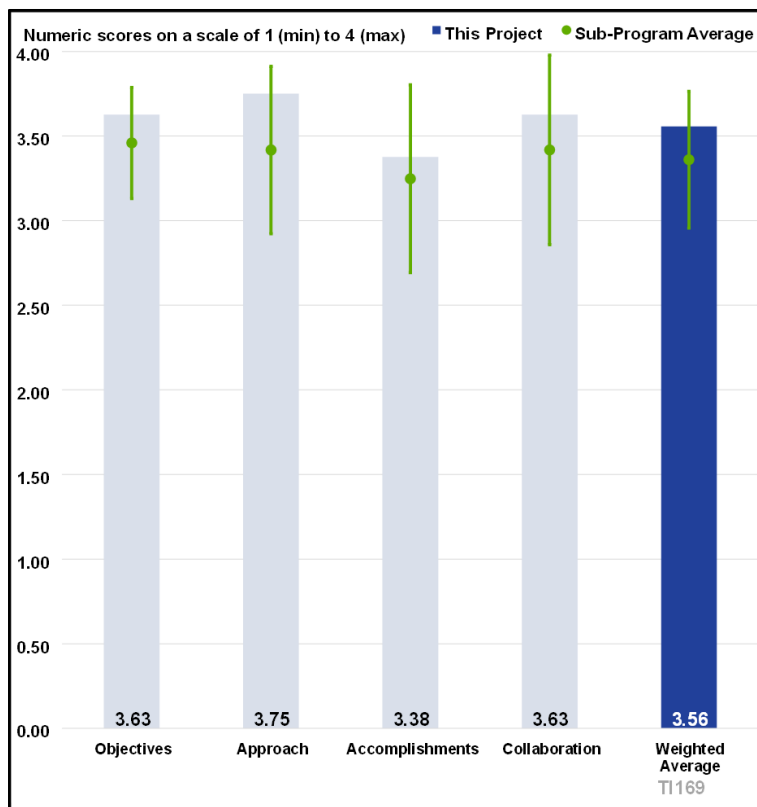


Figure 6-8 - Presentation Number: TI169 Presentation Title: GUMBO: Guaranteeing Access to Underserved and Marginalized Populations by Building Employment Opportunities Principal Investigator: Ann Vail, Louisiana Clean Fuels

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI169_Vail_2025_o.pdf

Presentation Number:
TI170
Presentation Title:
Boat Energy Transition Accelerator
Principal Investigator:
Chandler Kemp, Alaska Longline
Fishermen's Association

Presenter
Chandler Kemp, Alaska Longline
Fishermen's Association

Reviewer Sample Size
A total of four reviewers evaluated
this project.

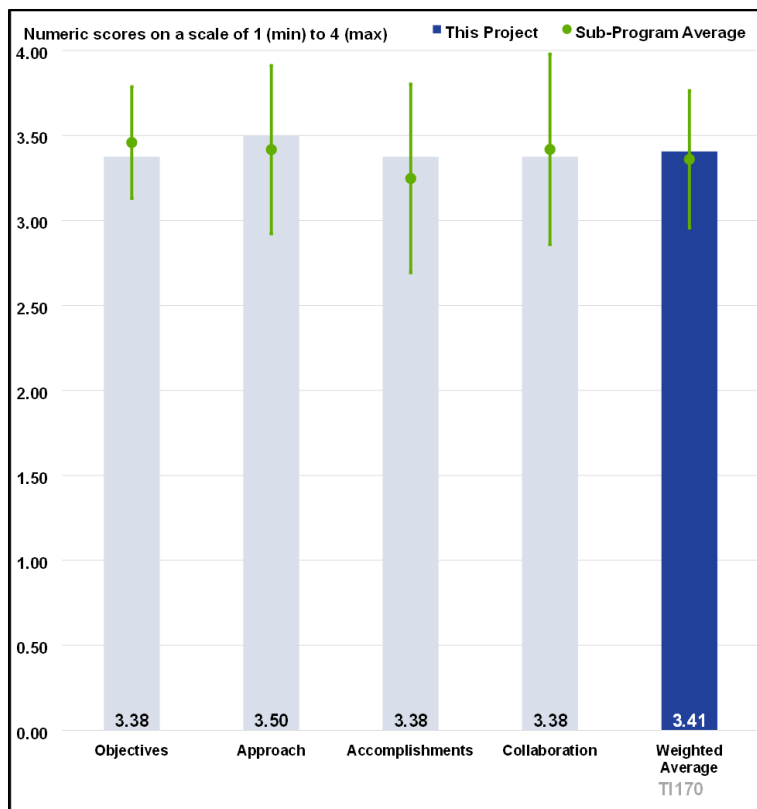


Figure 6-9 - Presentation Number: TI170 Presentation Title:
Boat Energy Transition Accelerator Principal Investigator:
Chandler Kemp, Alaska Longline Fishermen's Association

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI170_Kemp_2025_o.pdf

Presentation Number:

TI173

Presentation Title:

Logistics Decarbonization in Strategic Areas (LODESTAR)

Principal Investigator:

Matthew Wade, Virginia Clean Cities

Presenter

Matthew Wade, Virginia Clean Cities

Reviewer Sample Size

A total of three reviewers evaluated this project.

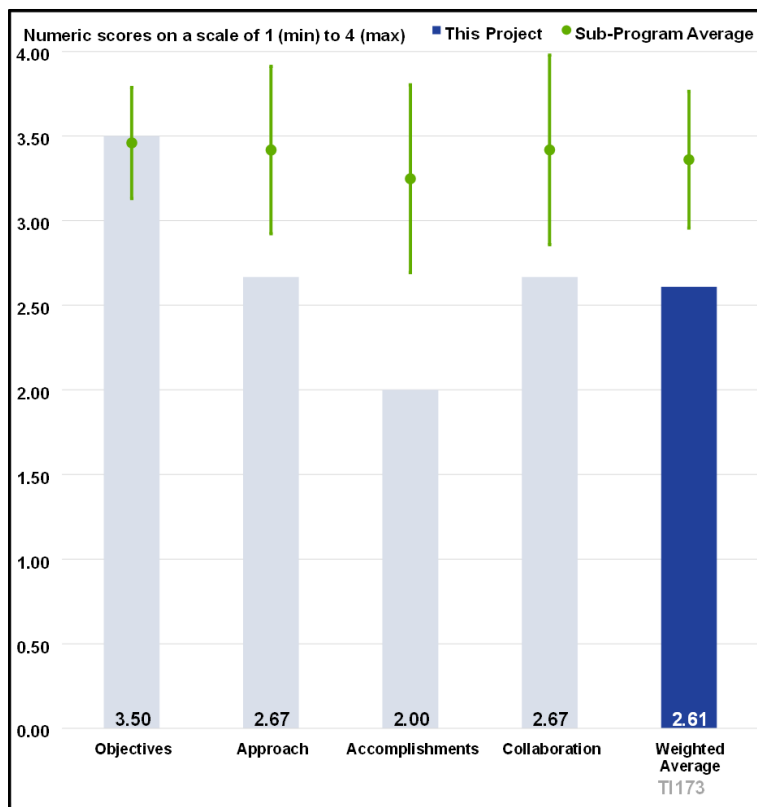


Figure 6-10 - Presentation Number: TI173 Presentation Title: Logistics Decarbonization in Strategic Areas (LODESTAR) Principal Investigator: Matthew Wade, Virginia Clean Cities

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI173_Wade_2025_o.pdf

Presentation Number:

TI175

Presentation Title:

Multimodal/Drone Delivery Demonstration to Communities and Mobility Challenged Populations

Principal Investigator:

Alicia Winkelblech, City of Arlington, Texas

Presenter

Ann Foss, City of Arlington, Texas

Reviewer Sample Size

A total of three reviewers evaluated this project.

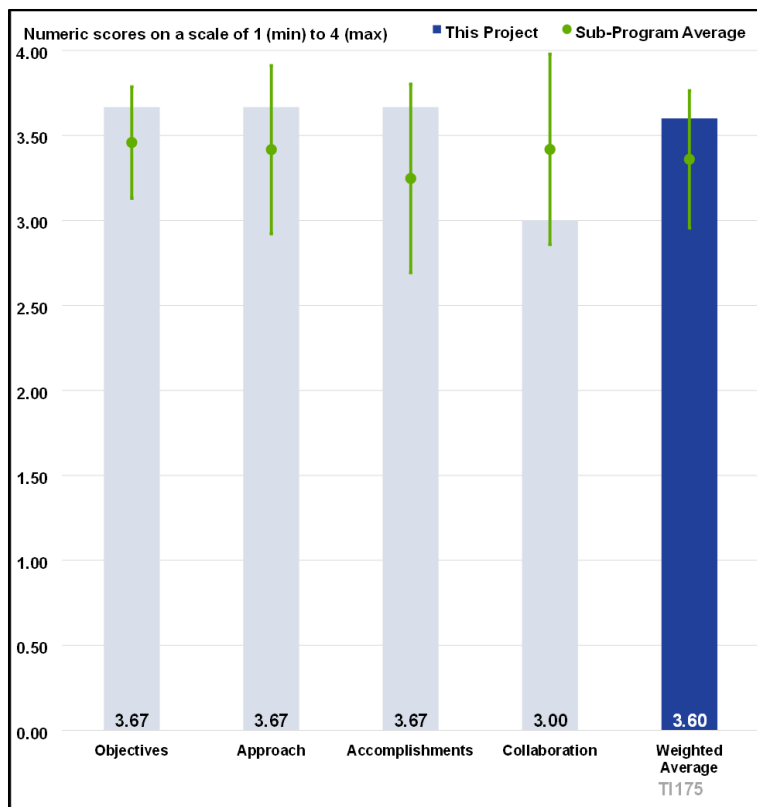


Figure 6-11 - Presentation Number: TI175 Presentation Title: Multimodal/Drone Delivery Demonstration to Communities and Mobility Challenged Populations Principal Investigator: Alicia Winkelblech, City of Arlington, Texas

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI175_Winkelblech_2025_o.pdf

Presentation Number:

TI176

Presentation Title:

DRIVE Electric USA 2

Principal Investigator:

Jonathan Overly, East Tennessee
Clean Fuels Coalition

Presenter

Jonathan Overly, East Tennessee
Clean Fuels Coalition

Reviewer Sample Size

A total of two reviewers evaluated
this project.

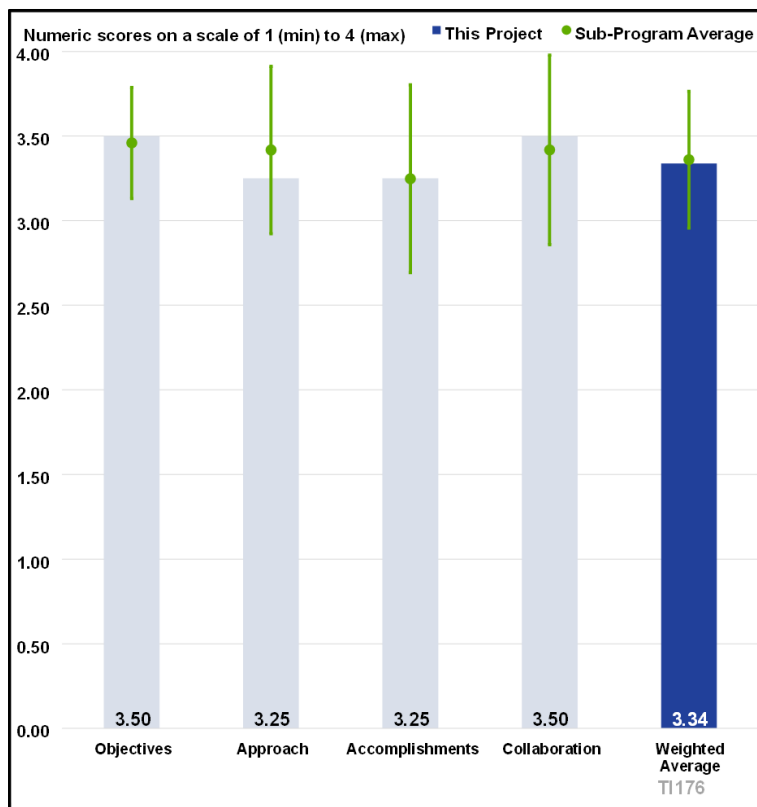


Figure 6-12 - Presentation Number: TI176 Presentation Title: DRIVE Electric USA 2 Principal Investigator: Jonathan Overly, East Tennessee Clean Fuels Coalition

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI176_Overly_2025_o.pdf

Presentation Number:

TI177

Presentation Title:

A Utility-Scale Plan for Accelerating the Deployment of Multi-Family EV Charging Infrastructure

Principal Investigator:

Ann Xu, ElectroTempo, Inc.

Presenter

Patrick Finch, ElectroTempo, Inc.

Reviewer Sample Size

A total of three reviewers evaluated this project.

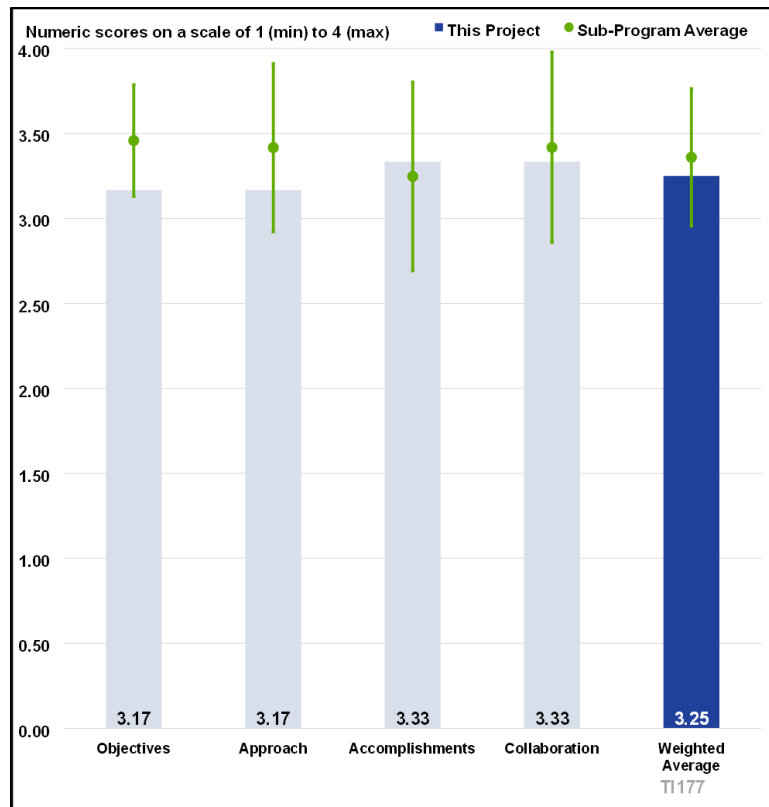


Figure 6-13 - Presentation Number: TI177 Presentation Title: A Utility-Scale Plan for Accelerating the Deployment of Multi-Family EV Charging Infrastructure Principal Investigator: Ann Xu, ElectroTempo, Inc.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI177_Xu_2025_o.pdf

Presentation Number:

TI178

Presentation Title:

Expanding Access to Charging at Home (EACH) Program

Principal Investigator:

Prateek Suri, Forth Mobility

Presenter

Whit Jamieson, Forth Mobility

Reviewer Sample Size

A total of two reviewers evaluated this project.

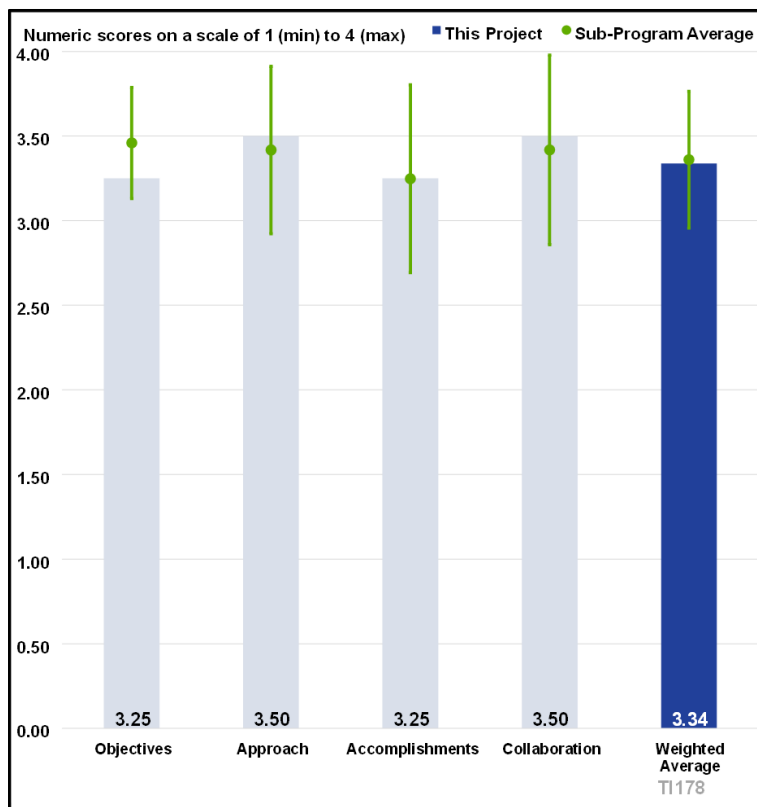


Figure 6-14 - Presentation Number: TI178 Presentation Title: Expanding Access to Charging at Home (EACH) Program Principal Investigator: Prateek Suri, Forth Mobility

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI178_Suri_2025_o.pdf

Presentation Number:

TI179

Presentation Title:

Supporting Transportation Electrification - Leadership, Learning, Assistance, and Resources (STELLAR)

Principal Investigator:

Jon Hunter, American Lung Association

Presenter

Jon Hunter, American Lung Association

Reviewer Sample Size

A total of two reviewers evaluated this project.

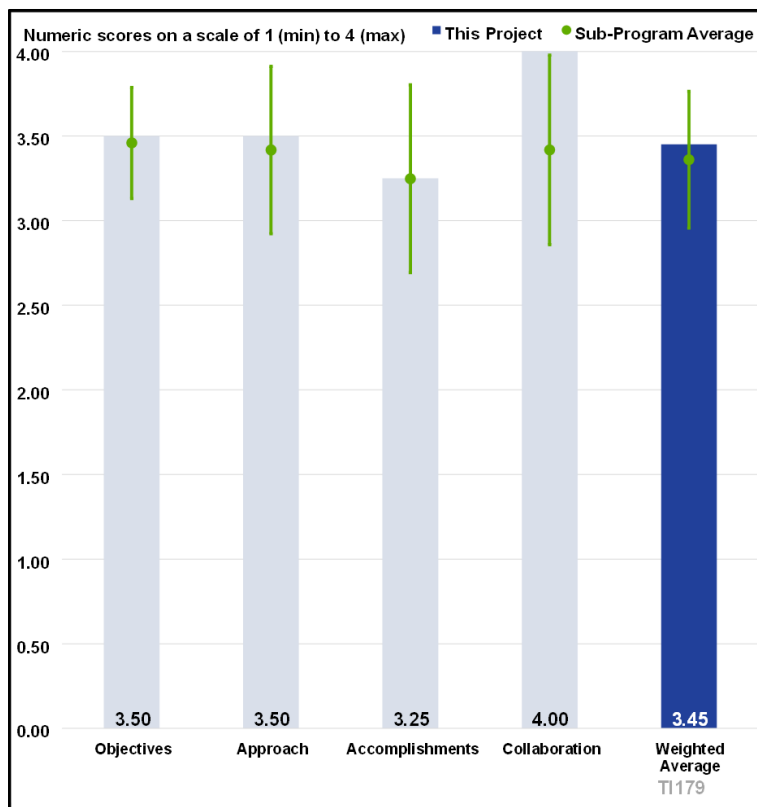


Figure 6-15 - Presentation Number: TI179 Presentation Title: Supporting Transportation Electrification - Leadership, Learning, Assistance, and Resources (STELLAR) Principal Investigator: Jon Hunter, American Lung Association

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI179_Hunter_2025_o.pdf

Presentation Number:

TI180

Presentation Title:

Assuring Equitable Access and Building Technical Capacity for Transportation Decarbonization among Native Nations in Washington, Oregon, Idaho, and Montana

Principal Investigator:

James Jensen, Washington State University

Presenter

James Jensen, Washington State University

Reviewer Sample Size

A total of three reviewers evaluated this project.

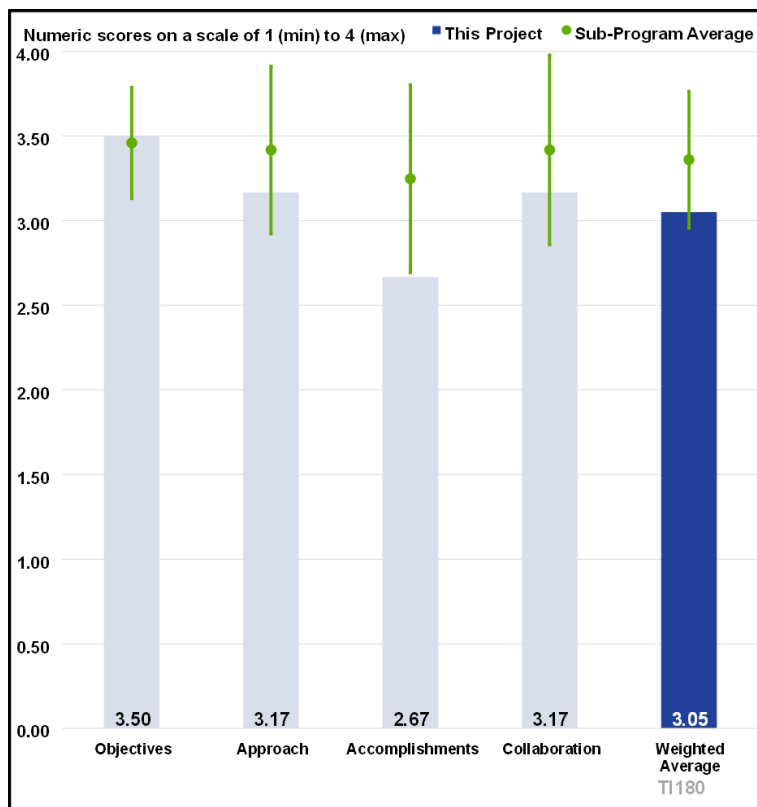


Figure 6-16 - Presentation Number: TI180 Presentation Title: Assuring Equitable Access and Building Technical Capacity for Transportation Decarbonization among Native Nations in Washington, Oregon, Idaho, and Montana Principal Investigator: James Jensen, Washington State University

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI180_Jensen_2025_o.pdf

Presentation Number:

TI181

Presentation Title:

Accelerating transportation decarbonization with underserved communities in California's Central Coast and South Bay regions

Principal Investigator:

Sean McArthur, Community Environmental Council

Presenter

Andrew Hoeksema, Ecology Action

Reviewer Sample Size

A total of three reviewers evaluated this project.

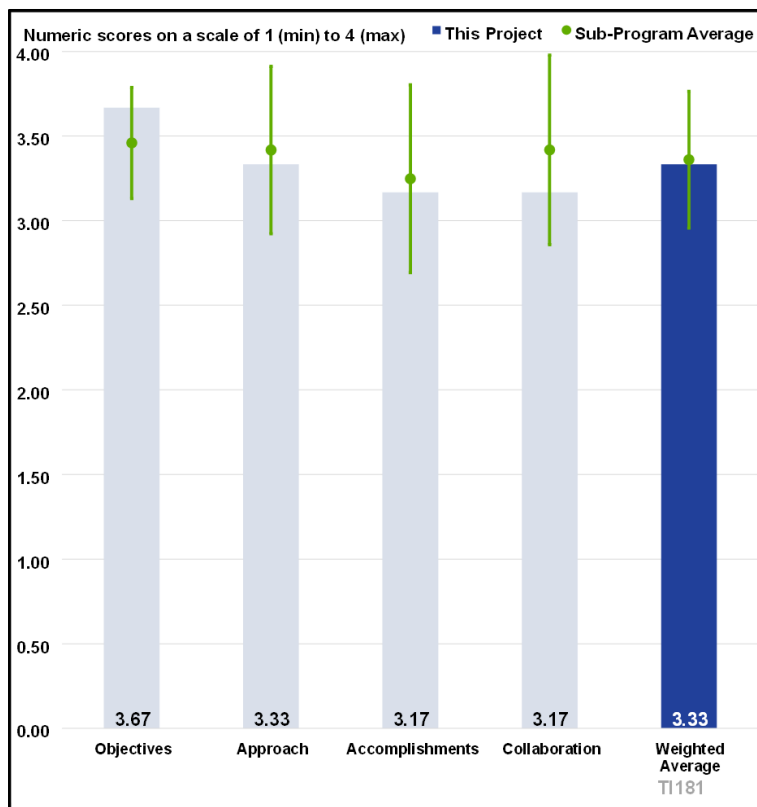


Figure 6-17 - Presentation Number: TI181 Presentation Title: Accelerating transportation decarbonization with underserved communities in California's Central Coast and South Bay regions Principal Investigator: Sean McArthur, Community Environmental Council

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI181_McArthur_2025_o.pdf

Presentation Number:

TI182

Presentation Title:

Community-Driven Transportation Plans for the Northeast

Principal Investigator:

Michael Anderson, Northeast Energy Efficiency Partnerships, Inc.

Presenter

Michael Anderson, Northeast Energy Efficiency Partnerships, Inc.

Reviewer Sample Size

A total of three reviewers evaluated this project.

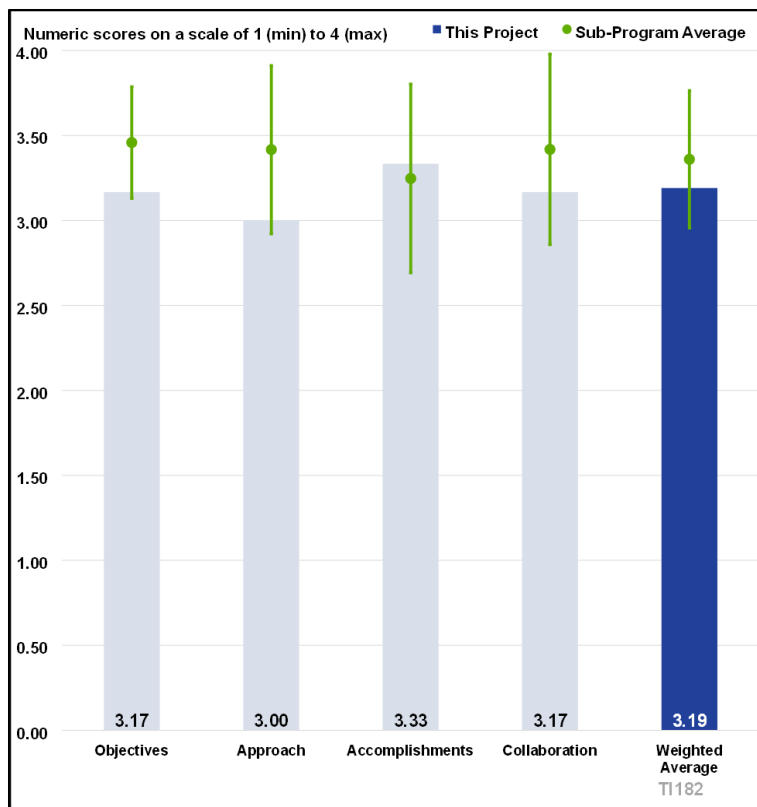


Figure 6-18 - Presentation Number: TI182 Presentation Title: Community-Driven Transportation Plans for the Northeast Principal Investigator: Michael Anderson, Northeast Energy Efficiency Partnerships, Inc.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI182_Anderson_2025_o.pdf

Presentation Number:

TI183

Presentation Title:

Michigan's Vehicle Technology Transition Impact Project (MiVTTP)

Principal Investigator:

Ashlee Breitner, University of Michigan

Presenter

Ashlee Breitner, University of Michigan

Reviewer Sample Size

A total of three reviewers evaluated this project.

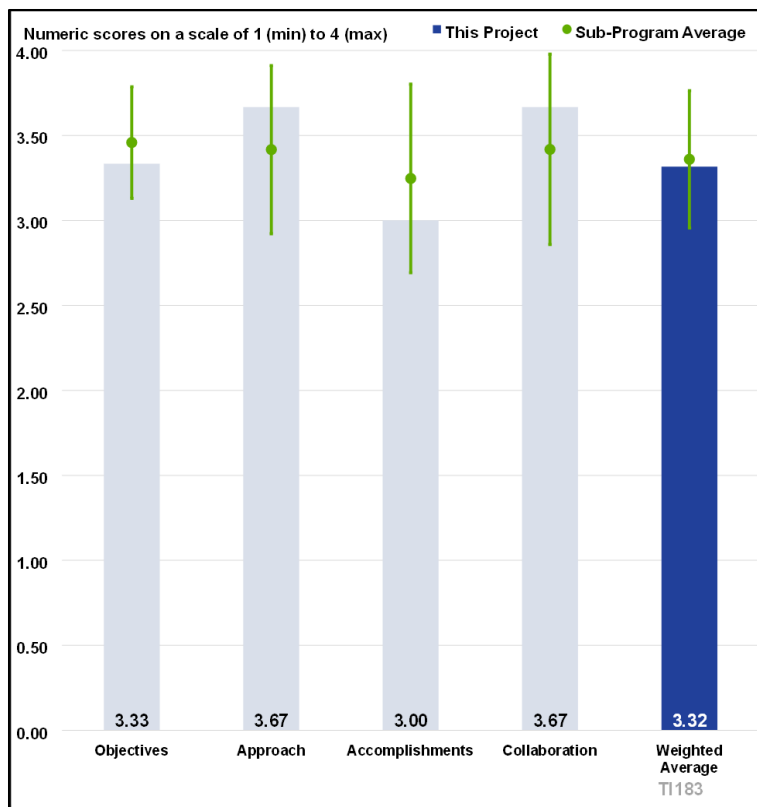


Figure 6-19 - Presentation Number: TI183 Presentation Title: Michigan's Vehicle Technology Transition Impact Project (MiVTTP) Principal Investigator: Ashlee Breitner, University of Michigan

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI183_Breitner_2025_o.pdf

Presentation Number:

TI184

Presentation Title:

Colorado Clean Mobility Strategic Planning

Principal Investigator:

Robyn Marquis, CALSTART

Presenter

Robyn Marquis, CALSTART

Reviewer Sample Size

A total of four reviewers evaluated this project.

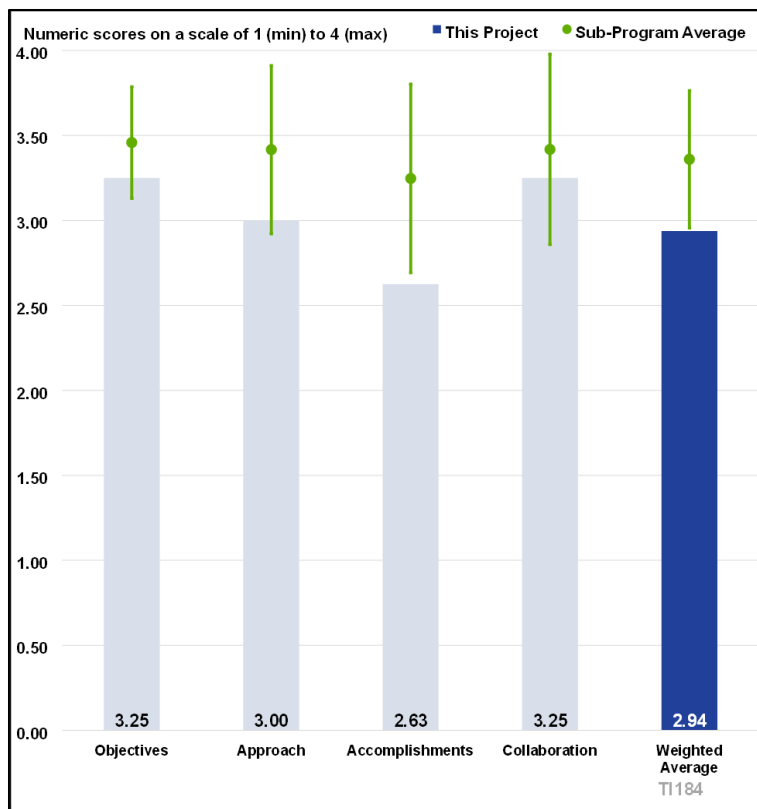


Figure 6-20 - Presentation Number: TI184 Presentation Title: Colorado Clean Mobility Strategic Planning Principal Investigator: Robyn Marquis, CALSTART

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI184_Marquis_2025_o.pdf

Presentation Number:

TI185

Presentation Title:

Advancing Access to EVs,
Infrastructure, and Jobs in
Communities

Principal Investigator:

Stan Cross, Southern Alliance for
Clean Energy

Presenter

Stan Cross, Southern Alliance for
Clean Energy

Reviewer Sample Size

A total of four reviewers evaluated
this project.

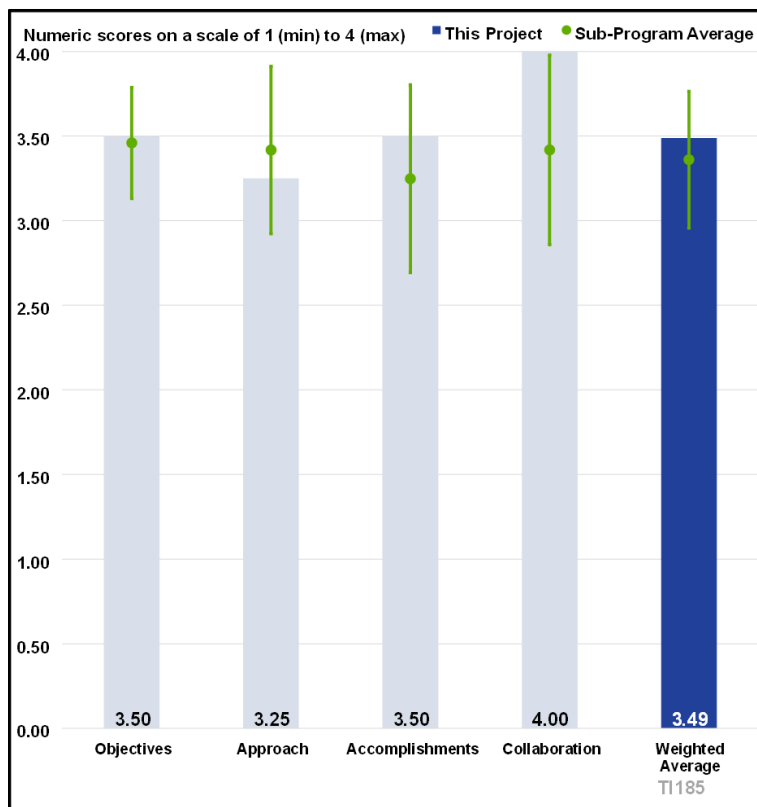


Figure 6-21 - Presentation Number: TI185 Presentation Title:
Advancing Access to EVs, Infrastructure, and Jobs in
Communities Principal Investigator: Stan Cross, Southern
Alliance for Clean Energy

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI185_Cross_2025_o.pdf

Presentation Number:
TI186
Presentation Title:
The Bronx is Breathing:
Reimagining a Cleaner Hunts Point
Principal Investigator:
Joy Gardner, Empire Clean Cities

Presenter
Jonah Kasden, Empire Clean Cities

Reviewer Sample Size
A total of four reviewers evaluated
this project.

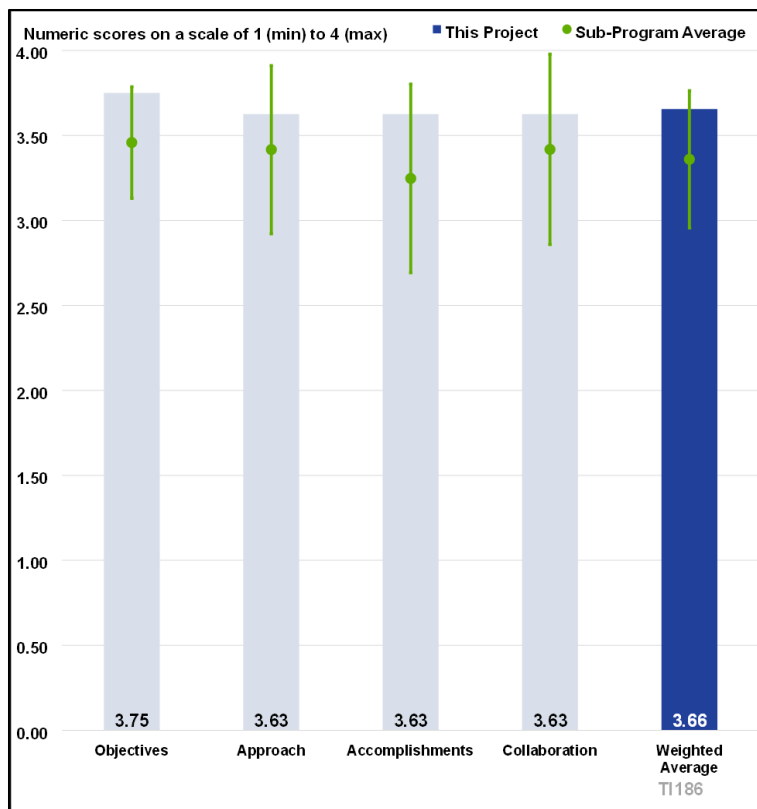


Figure 6-22 - Presentation Number: TI186 Presentation Title:
The Bronx is Breathing: Reimagining a Cleaner Hunts Point
Principal Investigator: Joy Gardner, Empire Clean Cities

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI186_Gardner_2025_o.pdf

Presentation Number:

TI187

Presentation Title:

Expanding Regional EVSE Access with Tribal Nations Based on Community Priorities

Principal Investigator:

Robert Blake, Native Sun Community Power Development

Presenter

Robert Blake, Native Sun Community Power Development

Reviewer Sample Size

A total of four reviewers evaluated this project.

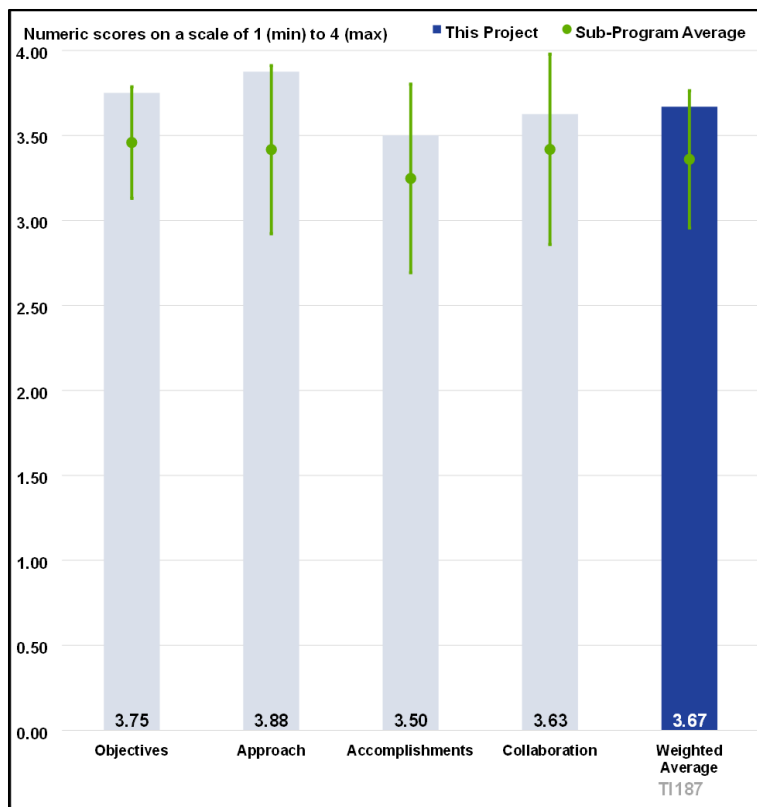


Figure 6-23 - Presentation Number: TI187 Presentation Title: Expanding Regional EVSE Access with Tribal Nations Based on Community Priorities Principal Investigator: Robert Blake, Native Sun Community Power Development

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI187_Blake_2025_o.pdf

Presentation Number:

TI188

Presentation Title:

Engaging Neighbors about Electric Vehicles in Underserved Places (EVEN-UP)

Principal Investigator:

Rich Myhre, Frontier Energy

Presenter

Rich Myhre, Frontier Energy

Reviewer Sample Size

A total of two reviewers evaluated this project.

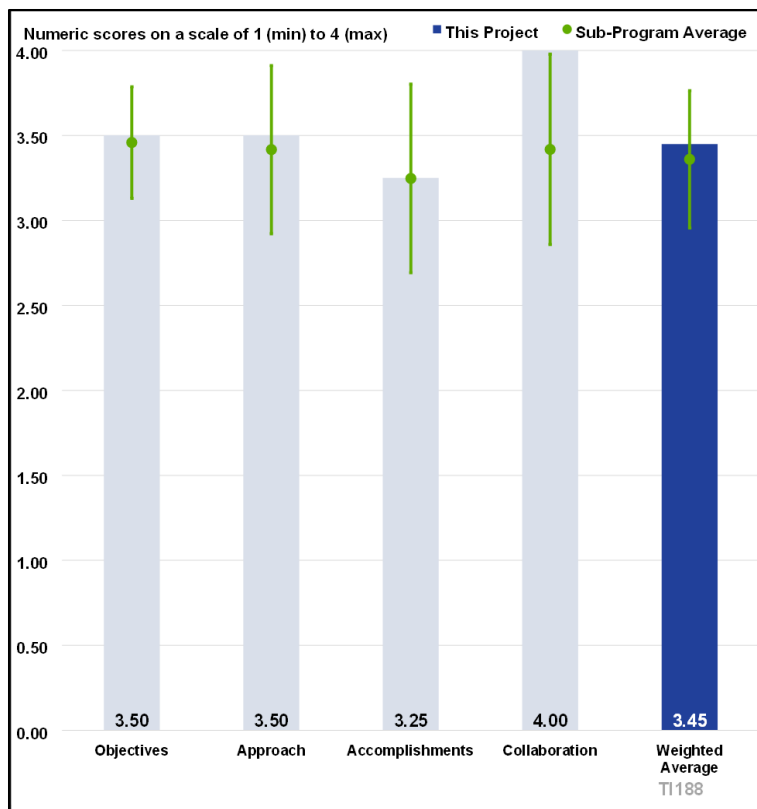


Figure 6-24 - Presentation Number: TI188 Presentation Title: Engaging Neighbors about Electric Vehicles in Underserved Places (EVEN-UP) Principal Investigator: Rich Myhre, Frontier Energy

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI188_Myhre_2025_o.pdf

Presentation Number:

TI189

Presentation Title:

Charged by Public Power -
Community Voices & Community
Choice

Principal Investigator:

Alice Havenar-Daughton, Marin
Clean Energy

Presenter

Joy Massey, Marin Clean Energy

Reviewer Sample Size

A total of two reviewers evaluated
this project.

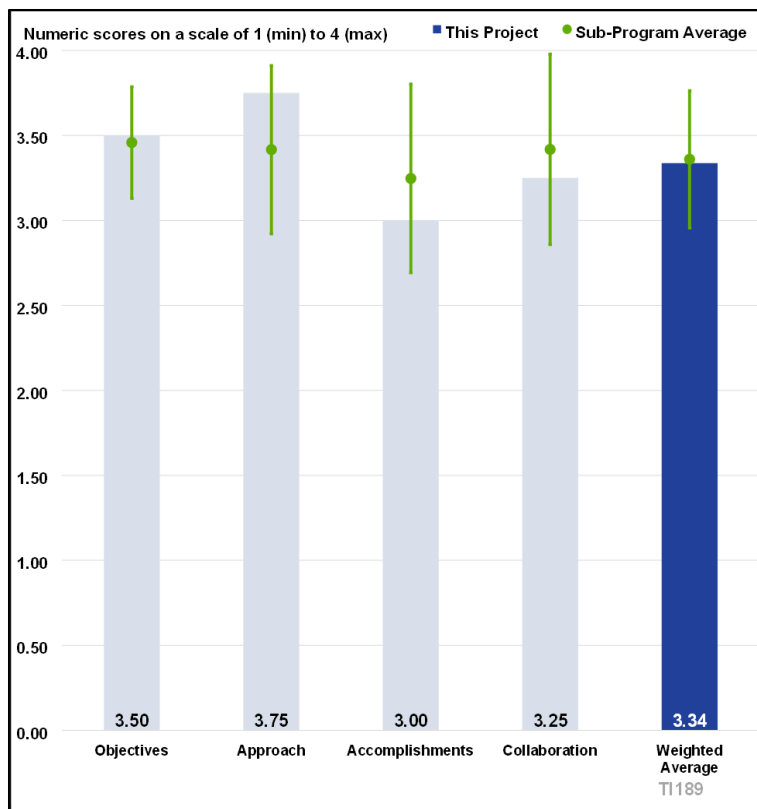


Figure 6-25 - Presentation Number: TI189 Presentation Title: Charged by Public Power - Community Voices & Community Choice Principal Investigator: Alice Havenar-Daughton, Marin Clean Energy

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI189_Havenar-Daughton_2025_o.pdf

Presentation Number:

TI190

Presentation Title:

Organizing and Supporting Under-Served Communities to Design, Implement, and Use EV Charging Infrastructure

Principal Investigator:

Jon Hunter, Minnesota Clean Cities Coalition

Presenter

Jon Hunter, Minnesota Clean Cities Coalition

Reviewer Sample Size

A total of two reviewers evaluated this project.

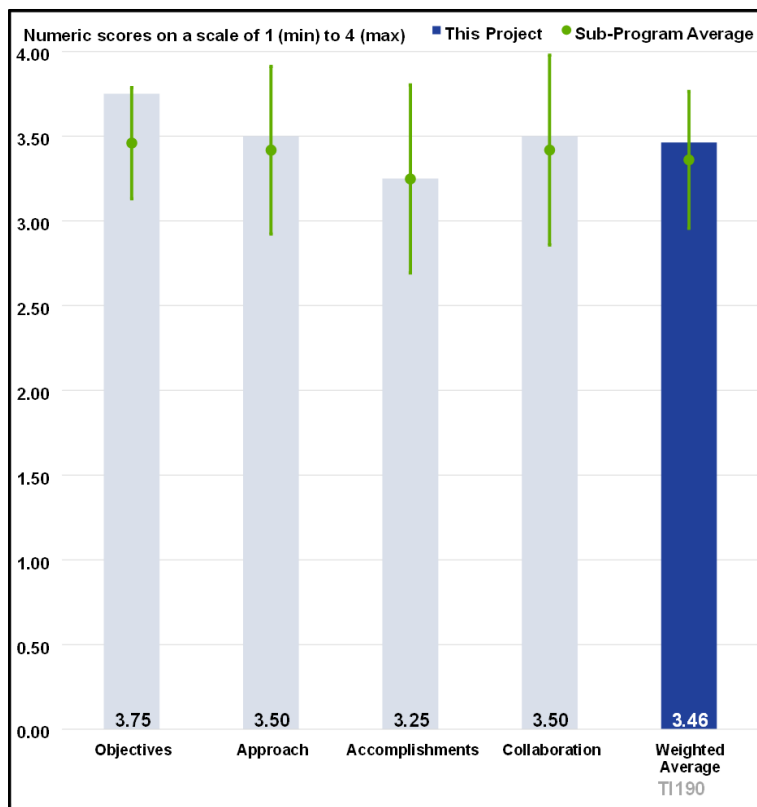


Figure 6-26 - Presentation Number: TI190 Presentation Title: Organizing and Supporting Under-Served Communities to Design, Implement, and Use EV Charging Infrastructure Principal Investigator: Jon Hunter, Minnesota Clean Cities Coalition

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI190_Hunter_2025_o.pdf

Presentation Number:

TI191

Presentation Title:

Alaska Rural EVSE Deployment

Principal Investigator:

Josephine Hartley, Alaska Energy Authority

Presenter

Sean Arcilla, Alaska Energy Authority

Reviewer Sample Size

A total of three reviewers evaluated this project.

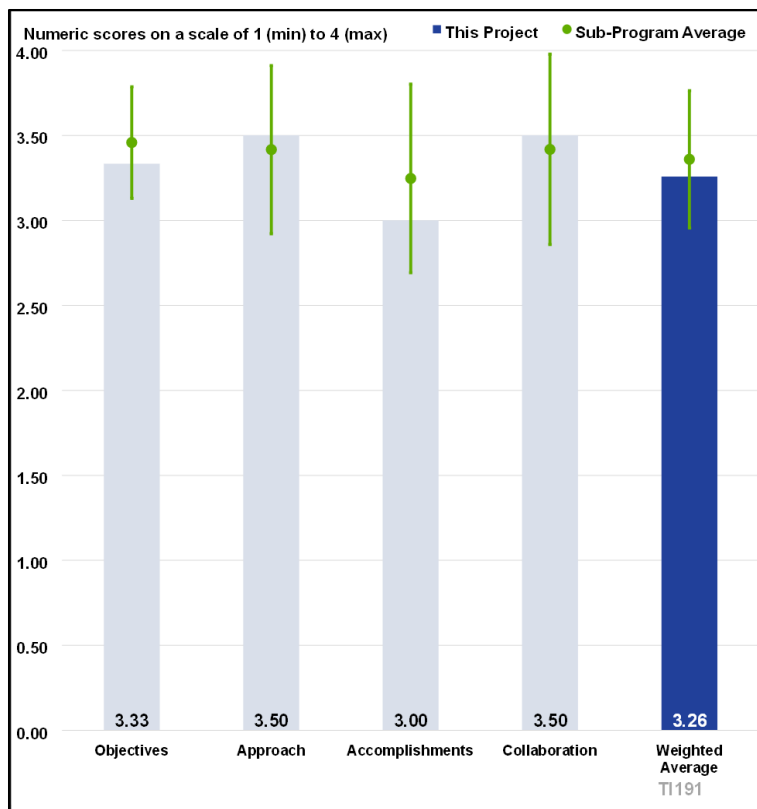


Figure 6-27 - Presentation Number: TI191 Presentation Title:
Alaska Rural EVSE Deployment Principal Investigator:
Josephine Hartley, Alaska Energy Authority

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI191_Hartley_2025_o.pdf

Presentation Number:

TI192

Presentation Title:

Demonstration and Deployment –
Electric Construction Vehicles

Principal Investigator:

Colton Brown, Bureau of Public
Transportation State of
Pennsylvania

Presenter

Colton Brown, Bureau of Public
Transportation State of
Pennsylvania

Reviewer Sample Size

A total of three reviewers evaluated
this project.

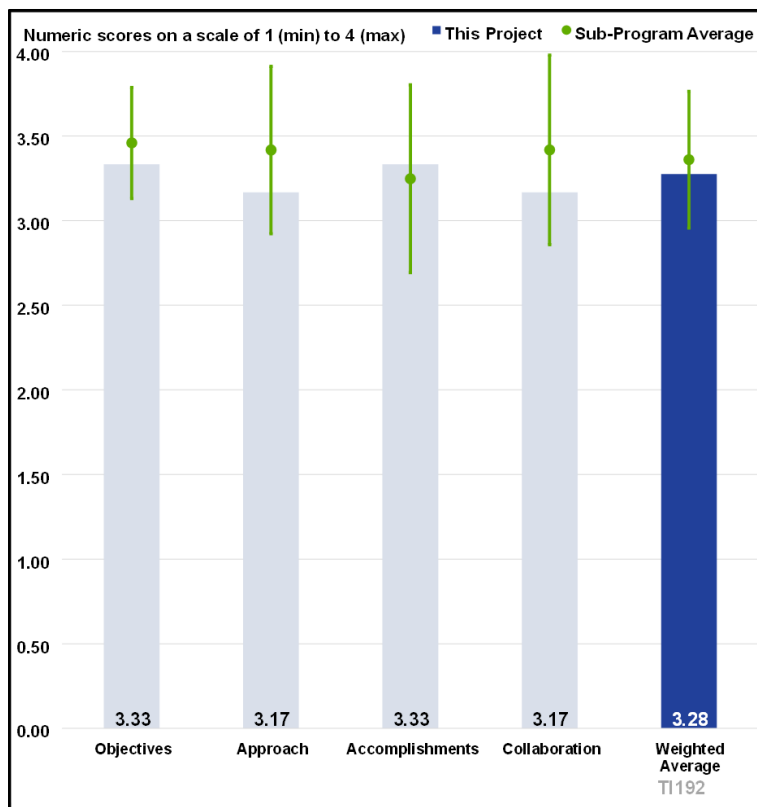


Figure 6-28 - Presentation Number: TI192 Presentation Title:
Demonstration and Deployment – Electric Construction
Vehicles Principal Investigator: Colton Brown, Bureau of
Public Transportation State of Pennsylvania

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI192_Brown_2025_o.pdf

Presentation Number:

TI193

Presentation Title:

De-ICEing: Battery Electric
Salt/Snowplow

Principal Investigator:

Russ Zukouski, International
Motors, LLC

Presenter

Dean Oppermann, International
Motors, LLC

Reviewer Sample Size

A total of four reviewers evaluated
this project.

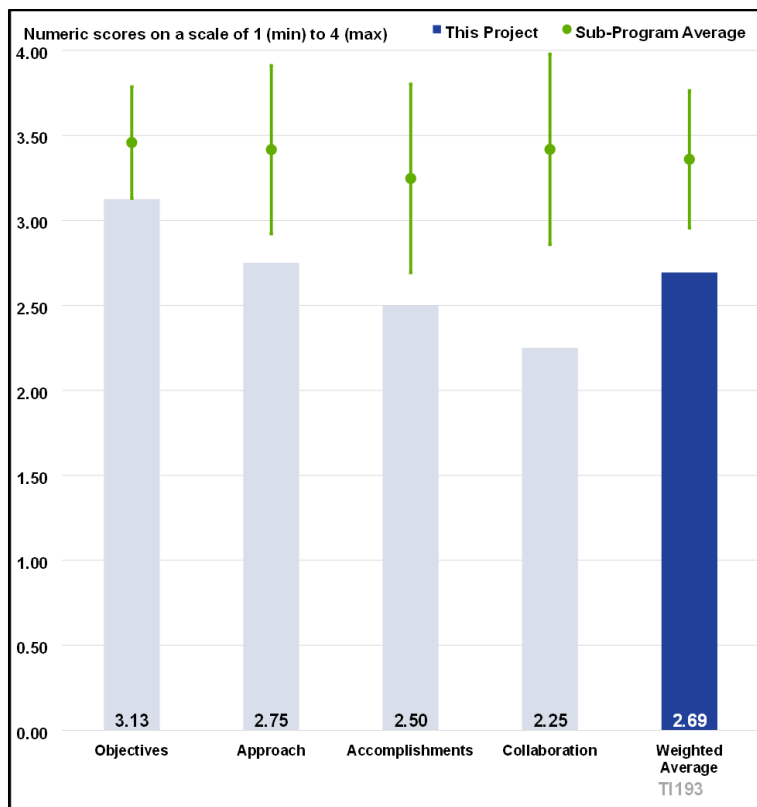


Figure 6-29 - Presentation Number: TI193 Presentation Title:
De-ICEing: Battery Electric Salt/Snowplow Principal
Investigator: Russ Zukouski, International Motors, LLC

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI193_Zukouski_2025_o.pdf

Presentation Number:

TI194

Presentation Title:

Outreach, Education and Training on Equitable Electric School Bus Adoption: Clean Cities Coalition Electric School Bus Academies

Principal Investigator:

Brittany Barrett, World Resources Institute

Presenter

Brittany Barrett, World Resources Institute

Reviewer Sample Size

A total of two reviewers evaluated this project.

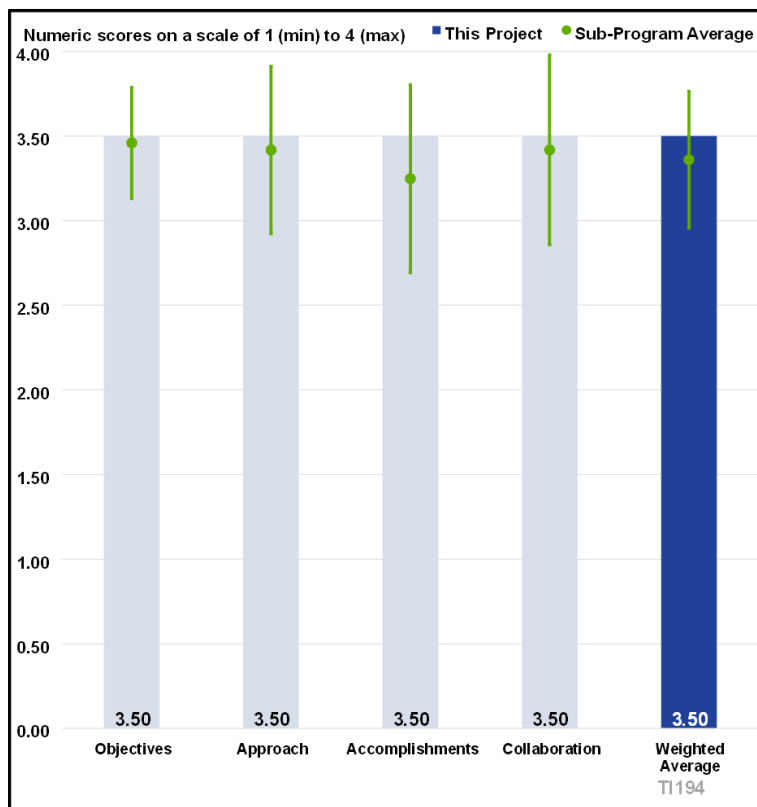


Figure 6-30 - Presentation Number: TI194 Presentation Title: Outreach, Education and Training on Equitable Electric School Bus Adoption: Clean Cities Coalition Electric School Bus Academies Principal Investigator: Brittany Barrett, World Resources Institute

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI194_Barrett_2025_o.pdf

Presentation Number:
TI195
Presentation Title:
Realizing Equity and Electrification
for Fleets ('Project REEF')
Principal Investigator:
Lynette Sapienza, Dome
Partnership

Presenter
Lynette Sapienza, Dome
Partnership

Reviewer Sample Size
A total of three reviewers evaluated
this project.

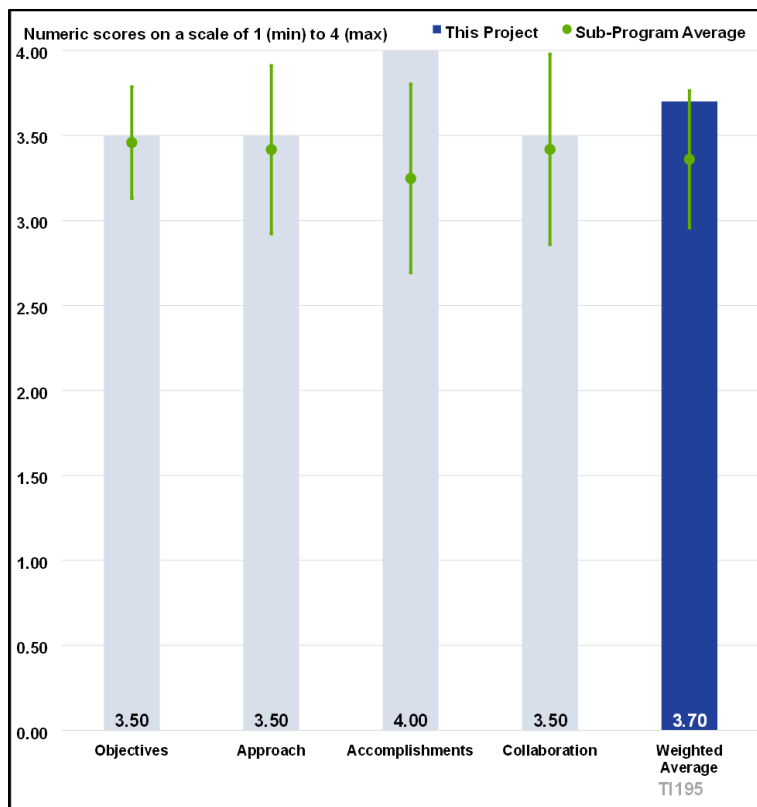


Figure 6-31 - Presentation Number: TI195 Presentation Title:
Realizing Equity and Electrification for Fleets ('Project REEF')
Principal Investigator: Lynette Sapienza, Dome Partnership

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI195_Sapienza_2025_o.pdf

Presentation Number:

TI196

Presentation Title:

Zero Emission Truck Roadshow

Principal Investigator:

Joshua York, CALSTART

Presenter

Joshua York, CALSTART

Reviewer Sample Size

A total of three reviewers evaluated this project.

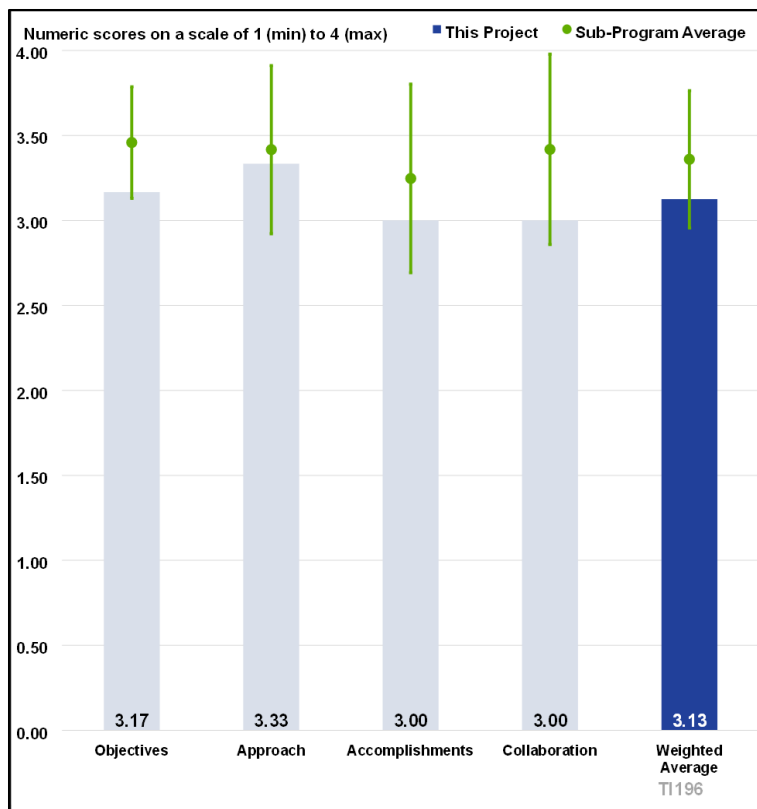


Figure 6-32 - Presentation Number: TI196 Presentation Title: Zero Emission Truck Roadshow Principal Investigator: Joshua York, CALSTART

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/TI196_York_2025_o.pdf

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7. Vehicles Analysis

The Vehicle Technologies Office (VTO) funds research and development (R&D) of engines, batteries, power electronics, motors, materials, and transportation systems. VTO leverages the unique capabilities and world-class expertise of the national laboratory system to innovate new vehicle technologies. VTO is uniquely positioned to accelerate innovative transportation technologies due to strategic public-private research partnerships with industry (e.g., the U.S. DRIVE Partnership, the 21st Century Truck Partnership) that leverage relevant expertise. These partnerships prevent duplication of effort, focus U.S. Department of Energy (DOE) research on critical R&D barriers, and accelerate progress.

The VTO Analysis (VAN) subprogram supports the planning and execution of technology, economic, and interdisciplinary analyses to inform and prioritize the VTO research portfolio and provide insights into critical transportation energy problems. VAN supports vehicle data, modeling and simulation, and integrated and applied analysis activities using the unique capabilities, analytical tools, and expertise resident in the DOE national laboratory system. This creates a holistic view of the transportation system, including the opportunities and benefits that advanced vehicle technologies offer by strengthening national security, increasing reliability, and reducing costs for consumers and businesses. Through these tools, the Analysis subprogram delivers greater understanding and insights into quickly evolving vehicle technologies and innovations for a broad range of internal and external stakeholders. Overall, these activities explore energy-specific advancements in vehicles and transportation systems to inform early-stage R&D and offer analytical direction for potential and future research investments.

Project Feedback

In this merit review activity, each reviewer was asked to respond to a series of questions, involving multiple-choice responses, expository responses where text comments were requested, and numeric score responses (on a scale of 1.0 to 4.0). In the pages that follow, the multiple choice and numeric score questions will be presented in graph form for each project. A table presenting the average numeric score for each question for each project is presented below.

Table 7-1 – Project Feedback

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
VAN033	Analysis of Employment and Other Economic Impacts of Transportation Electrification	Joann Zhou (Argonne National Laboratory)	7-4	3.00	2.83	3.00	3.17	2.94
VAN034	Fleet Research Energy Data and Insights (FleetREDI)	Alicia Birky (National Renewable Energy Laboratory)	7-5	3.75	3.63	3.50	3.63	3.64
VAN050	Holistic Modeling of Future Transportation Energy Use and Emissions (TEMPO)	Paige Jadun (National Renewable Energy Laboratory)	7-6	3.25	3.75	3.50	3.25	3.53
VAN051	Regional Optimization of Application and Infrastructure Architecture in Heavy-Duty Vehicle Electrification (OR-AGENT)	Vivek Sujan (Oak Ridge National Laboratory)	7-7	3.50	3.50	3.67	3.17	3.48
VAN052	Enhancing the EVI-X National Framework to Address Emerging Questions on Charging Infrastructure Deployment	Brennan Borlang (National Renewable Energy Laboratory)	7-8	3.50	3.67	3.83	3.33	3.60

Presentation ID	Presentation Title	Principal Investigator (Organization)	Page Number	Approach	Technical Accomplishments	Collaboration	Future Research	Weighted Average
VAN053	Medium- and Heavy-Duty Electric Vehicle Load, Operations, and Deployment (HEVI-LOAD) Augmentation for National-Scale Infrastructure Assessment	Bin Wang (Lawrence Berkeley National Laboratory)	7-9	3.75	3.25	2.00	3.50	3.25
VAN054	Managing Increased Electric Vehicle Shares on Bulk Power Systems	Brennan Borlang (National Renewable Energy Laboratory)	7-10	3.50	3.83	3.17	3.33	3.60
VAN056	Agent Based, Bottom Up Medium and Heavy-Duty Electric Vehicle Economics, Operation, Charging, and Adoption	Thomas Bradley (Colorado State University)	7-11	3.25	3.25	3.00	3.00	3.21
VAN057	Scalable Truck Charging Demand Simulation for Cost-Optimized Infrastructure Planning	Ann Xu (Electrotem-po)	7-12	3.50	3.83	3.67	1.00	3.59
Overall Average				3.44	3.50	3.26	3.04	3.43

Presentation Number:

VAN033

Presentation Title:

Analysis of Employment and Other Economic Impacts of Transportation Electrification

Principal Investigator:

Joann Zhou, Argonne National Laboratory

Presenter

Joann Zhou, Argonne National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

67% of reviewers felt that the project was relevant to current DOE objectives, 33% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/VAN033_Zhou_2025_o.pdf

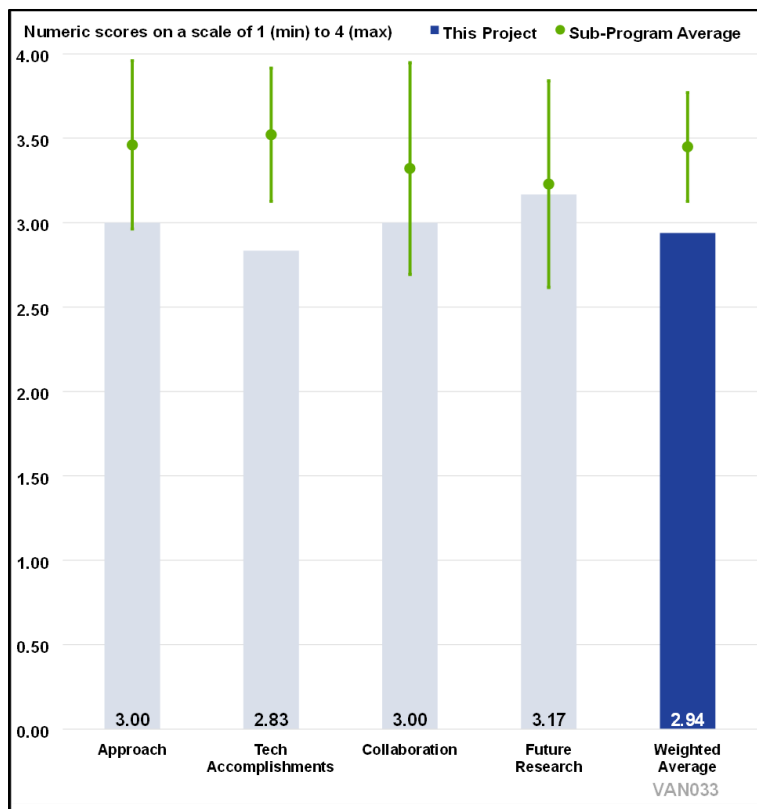


Figure 7-1 - Presentation Number: VAN033 Presentation Title: Analysis of Employment and Other Economic Impacts of Transportation Electrification Principal Investigator: Joann Zhou, Argonne National Laboratory

Presentation Number:

VAN034

Presentation Title:

Fleet Research Energy Data and Insights (FleetREDI)

Principal Investigator:

Alicia Birky, National Renewable Energy Laboratory

Presenter

Alicia Birky, National Renewable Energy Laboratory

Reviewer Sample Size

A total of four reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

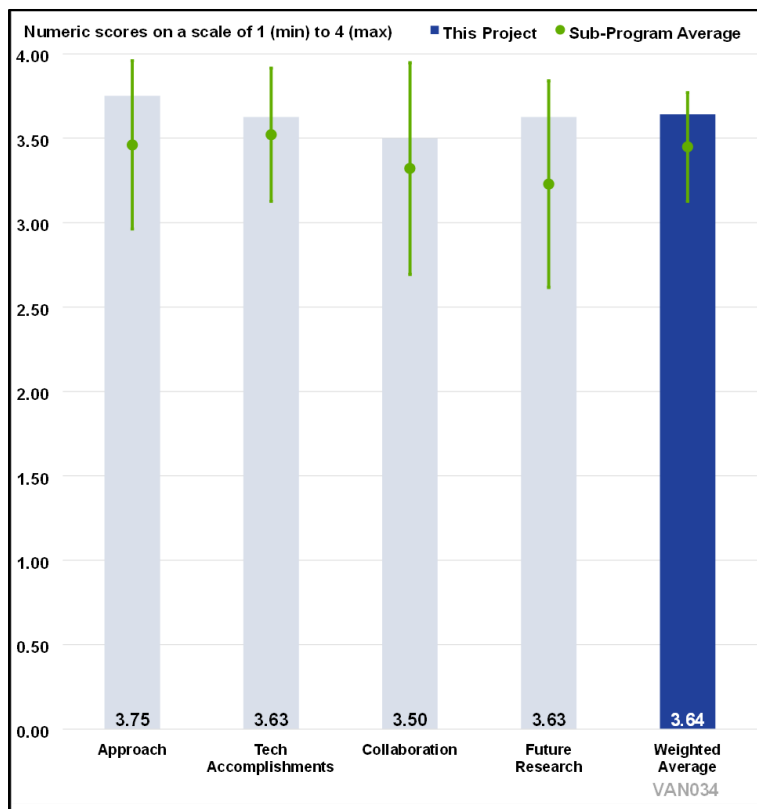


Figure 7-2 - Presentation Number: VAN034 Presentation Title: Fleet Research Energy Data and Insights (FleetREDI) Principal Investigator: Alicia Birky, National Renewable Energy Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/VAN034_Birky_2025_o.pdf

Presentation Number:

VAN050

Presentation Title:

Holistic Modeling of Future Transportation Energy Use and Emissions (TEMPO)

Principal Investigator:

Paige Jadun, National Renewable Energy Laboratory

Presenter

Brennan Borlang on behalf of Paige Jadun, National Renewable Energy Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/VAN050_Jadun_2025_o.pdf

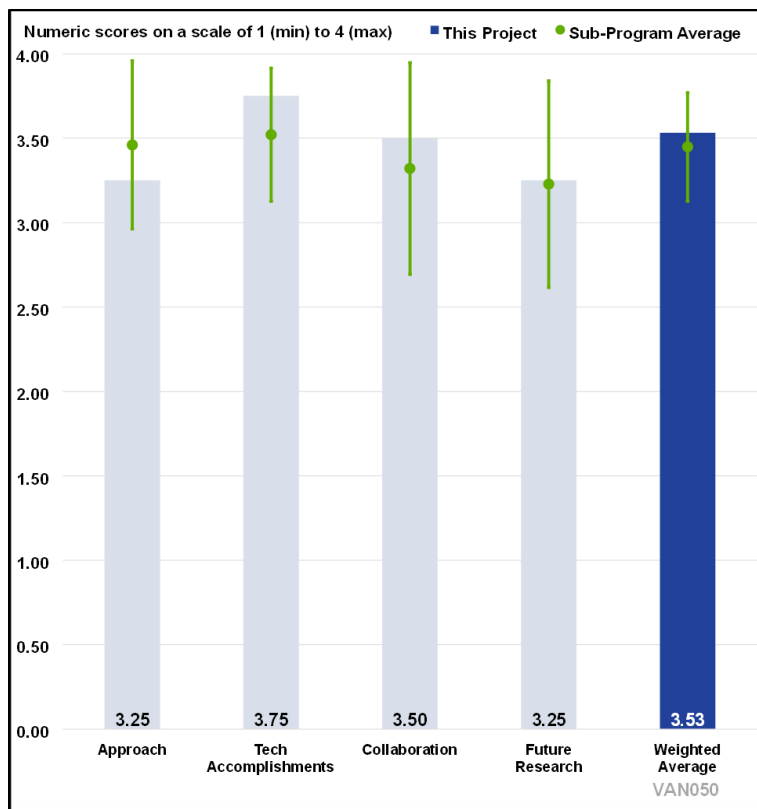


Figure 7-3 - Presentation Number: VAN050 Presentation Title: Holistic Modeling of Future Transportation Energy Use and Emissions (TEMPO) Principal Investigator: Paige Jadun, National Renewable Energy Laboratory

Presentation Number:

VAN051

Presentation Title:

Regional Optimization of Application and Infrastructure Architecture in Heavy-Duty Vehicle Electrification (OR-AGENT)

Principal Investigator:

Vivek Sujan, Oak Ridge National Laboratory

Presenter

Vivek Sujan, Oak Ridge National Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/VAN051_Sujan_2025_o.pdf

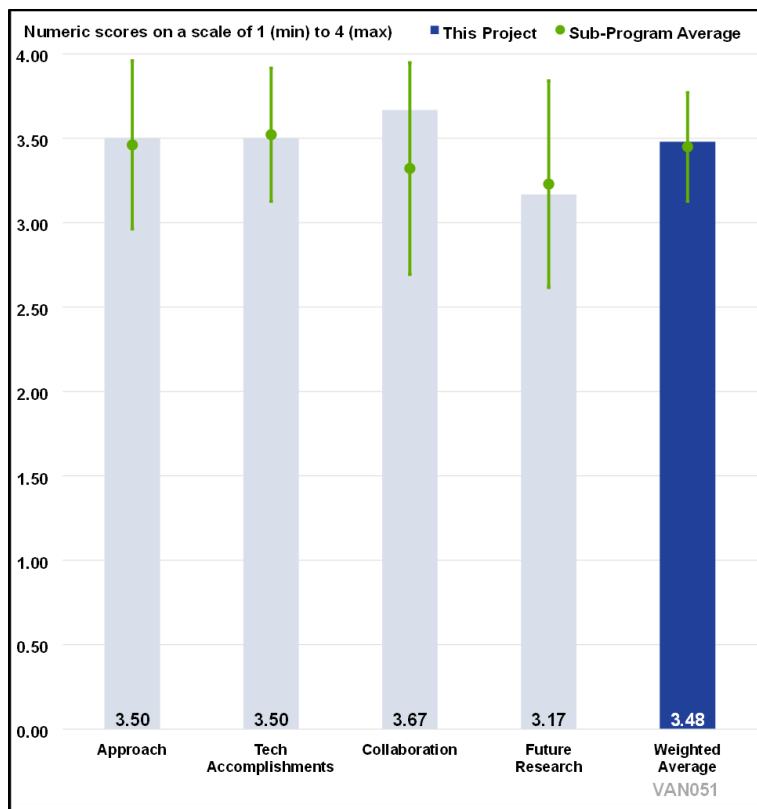


Figure 7-4 - Presentation Number: VAN051 Presentation Title: Regional Optimization of Application and Infrastructure Architecture in Heavy-Duty Vehicle Electrification (OR-AGENT) Principal Investigator: Vivek Sujan, Oak Ridge National Laboratory

Presentation Number:

VAN052

Presentation Title:

Enhancing the EVI-X National Framework to Address Emerging Questions on Charging Infrastructure Deployment

Principal Investigator:

Brennan Borlang, National Renewable Energy Laboratory

Presenter

Brennan Borlang, National Renewable Energy Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

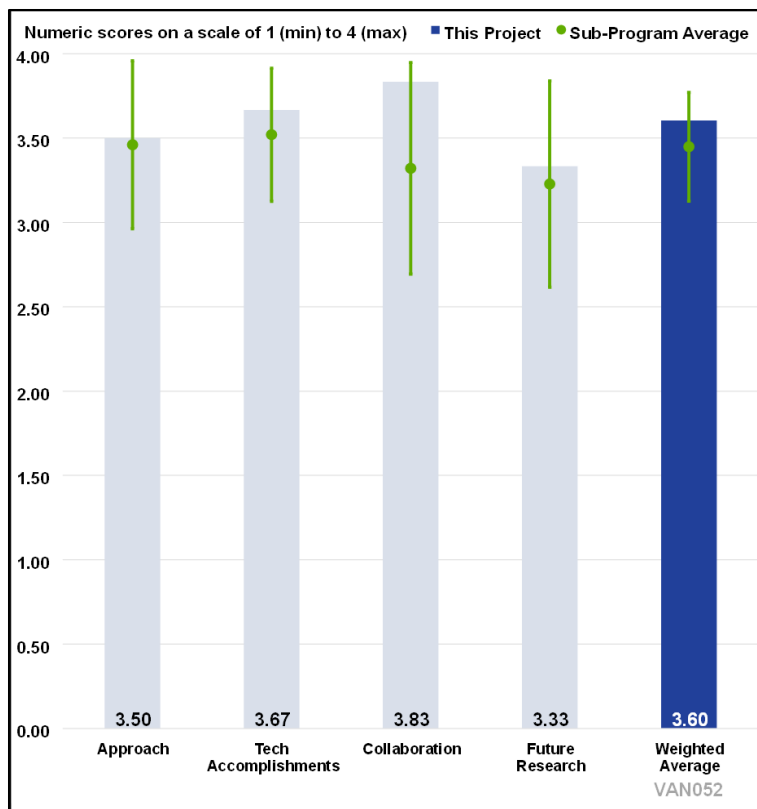


Figure 7-5 - Presentation Number: VAN052 Presentation Title: Enhancing the EVI-X National Framework to Address Emerging Questions on Charging Infrastructure Deployment Principal Investigator: Brennan Borlang, National Renewable Energy Laboratory

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/VAN052_Borlaug_2025_o.pdf

Presentation Number:

VAN053

Presentation Title:

Medium- and Heavy-Duty Electric Vehicle Load, Operations, and Deployment (HEVI-LOAD) Augmentation for National-Scale Infrastructure Assessment

Principal Investigator:

Bin Wang, Lawrence Berkeley National Laboratory

Presenter

Bin Wang, Lawrence Berkeley National Laboratory

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/VAN053_Wang_2025_o.pdf

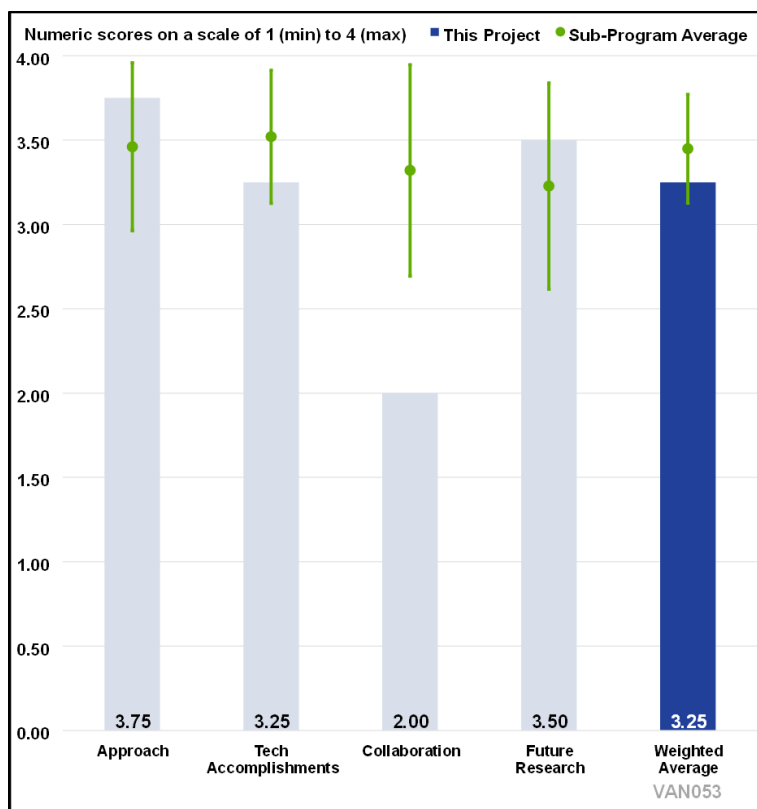


Figure 7-6 - Presentation Number: VAN053 Presentation Title: Medium- and Heavy-Duty Electric Vehicle Load, Operations, and Deployment (HEVI-LOAD) Augmentation for National-Scale Infrastructure Assessment Principal Investigator: Bin Wang, Lawrence Berkeley National Laboratory

Presentation Number:

VAN054

Presentation Title:

Managing Increased Electric Vehicle Shares on Bulk Power Systems

Principal Investigator:

Brennan Borlang, National Renewable Energy Laboratory

Presenter

Elaine Hale, National Renewable Energy Laboratory

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/VAN054_Borlang_2025_o.pdf

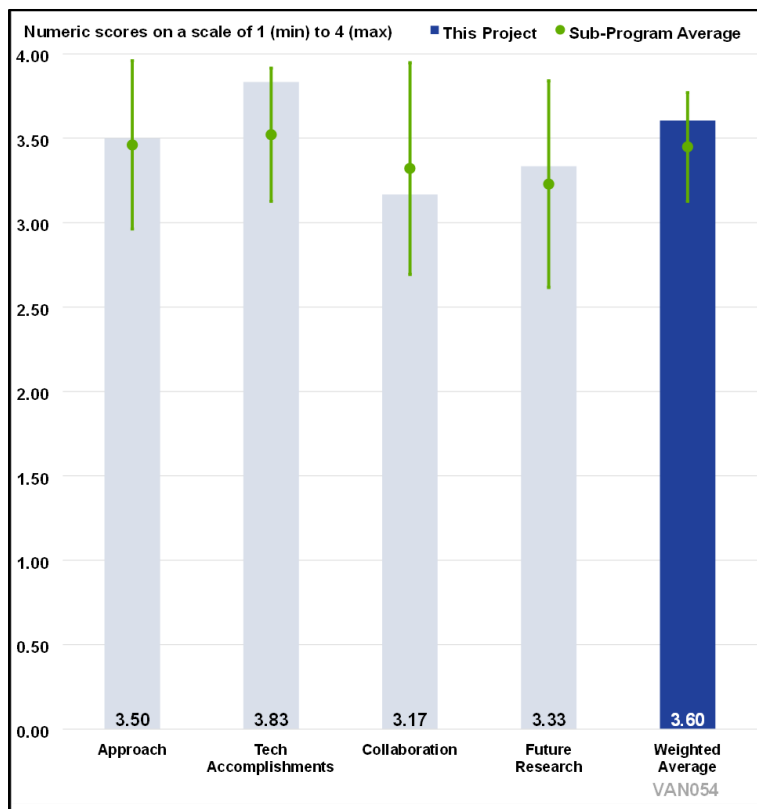


Figure 7-7 - Presentation Number: VAN054 Presentation Title: Managing Increased Electric Vehicle Shares on Bulk Power Systems Principal Investigator: Brennan Borlang, National Renewable Energy Laboratory

Presentation Number:

VAN056

Presentation Title:

Agent Based, Bottom Up Medium and Heavy-Duty Electric Vehicle Economics, Operation, Charging, and Adoption

Principal Investigator:

Thomas Bradley, Colorado State University

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Presenter

Thomas Bradley, Colorado State University

Reviewer Sample Size

A total of two reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/VAN056_Bradley_2025_o.pdf

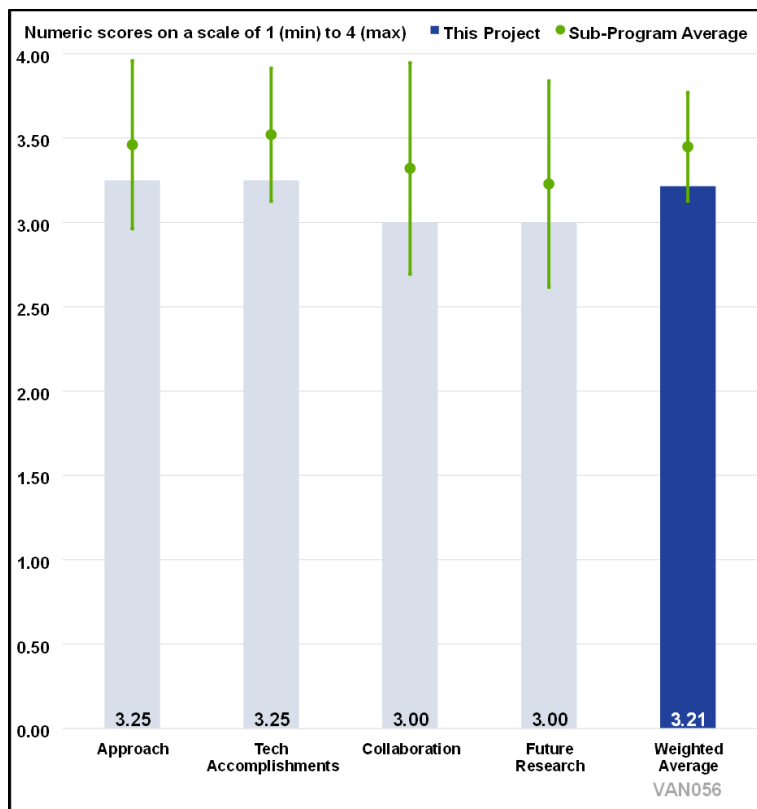


Figure 7-8 - Presentation Number: VAN056 Presentation Title: Agent Based, Bottom Up Medium and Heavy-Duty Electric Vehicle Economics, Operation, Charging, and Adoption Principal Investigator: Thomas Bradley, Colorado State University

Presentation Number:

VAN057

Presentation Title:

Scalable Truck Charging Demand Simulation for Cost-Optimized Infrastructure Planning

Principal Investigator:

Ann Xu, ElectroTempo, Inc.

Presenter

Patrick Finch, Electrotempo, Inc.

Reviewer Sample Size

A total of three reviewers evaluated this project.

Project Relevance and Resources

100% of reviewers felt that the project was relevant to current DOE objectives, 0% of reviewers felt that the project was not relevant, and 0% of reviewers did not indicate an answer. 100% of reviewers felt that the resources were sufficient, 0% of reviewers felt that the resources were insufficient, 0% of reviewers felt that the resources were excessive, and 0% of reviewers did not indicate an answer.

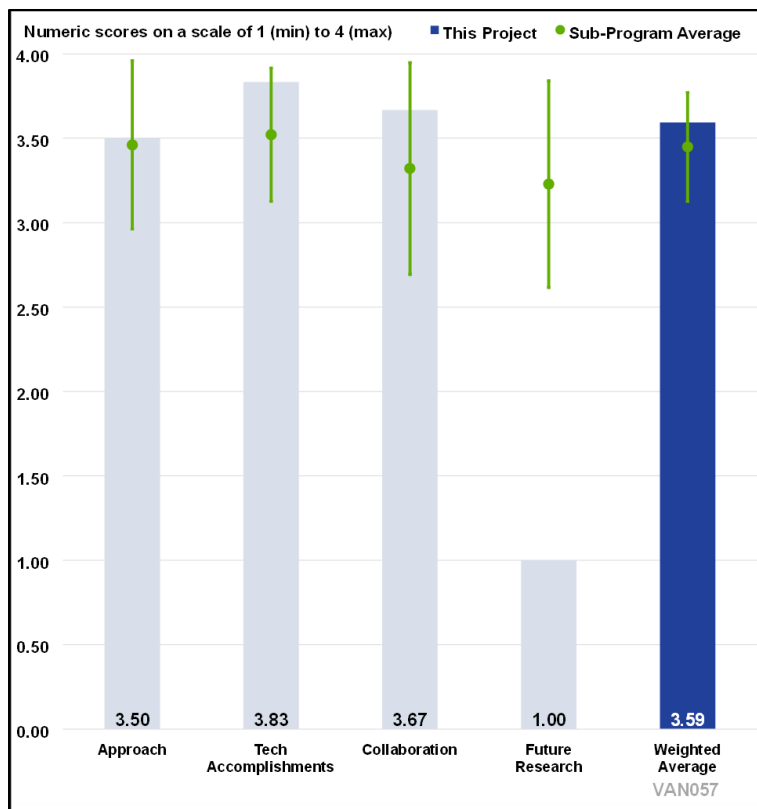


Figure 7-9 - Presentation Number: VAN057 Presentation Title: Scalable Truck Charging Demand Simulation for Cost-Optimized Infrastructure Planning Principal Investigator: Ann Xu, ElectroTempo, Inc.

[DOE Program Clarification: Reviewers noted the project work is complete, and the project has ended. Results and data from this project will be publicly available.]

Presentation Link:

https://www1.eere.energy.gov/vehiclesandfuels/downloads/2025_AMR/VAN057_Xu_2025_o.pdf

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