

2025 Vehicle Technologies Office Annual Merit Review

Electrification R&D (ELT) Oral Presentation Detailed Schedule

Tuesday, June 3, 2025		Wednesday, June 4, 2025		Thursday, June 5, 2025	
9:00 AM	ELT336: Evs@Scale Andrew Meintz, National Renewable Energy Laboratory	9:00 AM		9:00 AM	ELT316: NEXT DRIVE Overview, Burak Ozpineci, ORNL
9:15 AM		9:15 AM		9:15 AM	
9:30 AM	ELT300: EVs@Scale Codes and Standards Pillar, Ted Bohn, Argonne National Laboratory	9:30 AM		9:30 AM	ELT317: NEXT DRIVE Task 1: Power Semiconductor Devices, Bob Kaplar, Sandia National Laboratories
9:45 AM		9:45 AM		9:45 AM	
10:00 AM	ELT299: EVs@Scale High Power Charging Pillar, John Kisacikoglu, Alastair Thurlbeck, National Renewable Energy Laboratory	10:00 AM	ELT236: Direct-Current Conversion Equipment Connected to the Medium-Voltage Grid for Extreme Fast Charging Utilizing Modular and Interoperable Architecture, Watson Collins, EPRI Presenter: Krish Gomatom, EPRI	10:00 AM	ELT318: NEXT DRIVE Task 2: Electric Drive Components - Power Electronics/Power Modules, Nat Doug DeVoto, National Renewable Energy Laboratory
10:15 AM		10:15 AM		10:15 AM	
10:30 AM	ELT301: EVs@Scale Cyber-Physical Security Pillar, Richard Carlson, Idaho National Laboratory	10:30 AM	ELT312: Ultra-low Cost, All-SiC Modular Power, N Converters for DCFC Connected to MV Distribution System, Srdjan Lukic, North Carolina State University	10:30 AM	ELT319: NEXT DRIVE Task 2: Electric Drive Components - Motor Materials and Components, Jun Cui, Oak Ridge National Laboratory
10:45 AM		10:45 AM		10:45 AM	
11:00 PM	ELT302: EVs@Scale EV Modeling Toolkit, Andrew Satchwell, Lawrence Berkeley National Laboratory	11:00 PM	ELT294: Modular Direct Current (DC) Back Bone Recharging System for Non-Road Vehicles in Austere Environments, Leandro Della Flora, Beta Technologies	11:00 PM	ELT320: NEXT DRIVE Task 3: High Voltage, High Power Traction Inverters, Gui-Jia Su, Oak Ridge National Laboratory
11:15 PM		11:15 PM		11:15 PM	
11:30 PM	Time Buffer	11:30 PM	Time Buffer	11:30 PM	Time Buffer
11:40 PM	Lunch Break	11:40 PM	Lunch Break	11:40 PM	Lunch Break
1:10 PM	ELT295: EVs@Scale VGI & SCM Jesse Bennett, National Renewable Energy Laboratory	1:10 PM	ELT313: Rural Electric Utility Workflow Improvements for Rapid EVSE Deployment (REWired), Jennah Denney, National Rural Electric Cooperative Association	1:10 PM	ELT321: NEXT DRIVE Task 4: High Torque Heavy Ra Motors, Vandana Rallabandi, Oak Ridge National Laboratory
1:25 PM		1:25 PM		1:25 PM	
1:40 PM	ELT311: Innovative Integrated 3-In-1 Inverter/On Board Charger/Auxiliary DC Converter for Electrified Vehicles Applications Dhrubo Rahman, Ricardo, Inc.	1:40 PM	ELT314: Electric Vehicle Smart Program Management Interstate Renewable Energy Council (IREC), Ed Gilliland, IREC	1:40 PM	ELT322: NEXT DRIVE Task 5: Digital Twin Diagnostics and Prognostics, Praveen Kumar, Oak Ridge National Laboratory
1:55 PM		1:55 PM		1:55 PM	
2:10 PM	ELT293: Ruggedized Mobile Fast Charger for Off-Road Vehicles, Brij Singh, John Deere	2:10 PM	ELT296: Charging Infrastructure Interconnection Simplification Resource CIISR, Watson Collins, EPRI Presenter: Jennifer Robinson, EPRI	2:10 PM	ELT287: Cummins High Power Density Inverter, Santhosh Krishnamoorthi, Cummins
2:25 PM		2:25 PM		2:25 PM	
2:40 PM		2:40 PM	ELT315: EPRI GridFAST Express: Roadmap and Actions to Address Key Challenges to the Utility Interconnection Process and Supporting Supply Chain, Watson Collins, EPRI	2:40 PM	ELT323: GaN-Enabled Dual Multilevel Inverter Integrated Electric Drive System New, Khorshed Alam, General Motors
2:55 PM		2:55 PM		2:55 PM	
3:10 PM	Time Buffer	3:10 PM	Time Buffer	3:10 PM	Time Buffer
3:15 PM	Break	3:15 PM	Break	3:15 PM	Break
3:45 PM	ELT265: A Secure and Resilient Interoperable SCM Control System Architecture for Electric Vehicle's-At-Scale, Duncan Woodbury, Liberas	3:45 PM		3:45 PM	ELT324: Integrated Three-Level GAN Inverter and PMSYNRM Motor for Electric Passenger Vehicles and Medium/Heavy Duty Trucks (GANIN_PMSYNRM), Kevin Bai, University of Tennessee
4:00 PM		4:00 PM		4:00 PM	
4:15 PM	ELT310: Multi-Input Integrated Smart Charger-Inverter System with Galvanic Isolation Sandun Kuruppu, Western Michigan University	4:15 PM	ELT239: High-Power Inductive Charging System Development and Integration for Mobility, Omer Onar, ORNL	4:15 PM	ELT 275: Low-Cost Rare-Earth Free Electric Drivetrain Enabled by Novel Permanent Magnets, Inverter, Integrated Design and Advanced Thermal Management, Ayman El-Refaie, Marquette University
4:30 PM		4:30 PM		4:30 PM	
4:45 PM	ELT290: Behind-the-Meter-Storage, Anthony Burrell, National Renewable Energy Laboratory	4:45 PM		4:45 PM	
5:00 PM		5:00 PM		4:45 PM	Day 3 Ends
5:15 PM	Day 1 Ends	5:15 PM	Day 2 Ends		