

**Summary Minutes of the
Joint Office of U.S. Department of Energy (DOE) and U.S. Department of Transportation (DOT)
Electric Vehicle Working Group (EVWG) Meeting**

In Attendance:

Gabriel (Gabe) Klein

Executive Director, Joint Office of Energy and Transportation and Acting Chair EVWG

Dr. Rachael Nealer

Designated Federal Officer (DFO) of EVWG and Deputy Director Joint Office of Energy and Transportation

Rakesh Aneja

Vice President and Chief of eMobility, Daimler Truck North America

Michael Berube

Deputy Assistant Secretary for Sustainable Transportation and Fuels, U.S. DOE

John Bozzella

President & CEO, Alliance of Automotive Innovation

Dean Bushey

Senior VP of Sustainability, TravelCenters of America

Mark Dowd

Director for Zero-Emission Federal Vehicle Fleets, CEQ

Ruth Gratzke

President, Siemens Smart Infrastructure U.S.

Dr. David Haugen

Director of OTAQ's Testing and Advanced Technology Division, Environmental Protection Agency

Henrik Holland

Global Head of Prologis Mobility, Prologis

Andrew Koblenz

Executive Vice President of Strategic and Industry Initiatives National Automobile Dealers Association

Sharky Laguana

President, American Rental Car Association

Joung Lee

Deputy Director and Chief Policy Officer, AASHTO

Nadia El Mallakh

Senior Vice President of Strategic Partnerships, Coalition for Green Capital

Barak Myers

Transportation and Strategic Planner, Eastern Band of Cherokee Indians

Kelsey Owens

Senior EV Policy Advisor, DOT Office of the Secretary – Office of Policy

Crystal Philcox

Assistant Commissioner, Office of Travel, Transportation and Logistics, Federal Acquisition Service, U.S. General Services Administration

Cassie Powers

Chief of Staff, NASEO

Mike Roeth

*Executive Director, North American Council for Freight Efficiency
Principal, NA Freight, Rocky Mountain Institute*

Victoria Stephen

Director Next Generation Delivery Vehicle Program, Fleet Management & Electrification Strategy, United States Postal Service

Date and Time: November 13, 2024
Location: Virtual
Purpose: EVWG Meeting
EVWG Staff: Rachael Nealer (DFO), Rachael Sack (Facilitator), Scott Kubly, Sara Emmons (Deputy DFO), Kim Washington

Meeting Summary

This is an EVWG meeting convened under the Joint Office of Energy and Transportation (Joint Office). The meeting was conducted virtually via video conferencing. The meeting was called to order at approximately 3:00 p.m. EST. The meeting was attended by 18 members of the EVWG, Joint Office officials, and the public. The EVWG meeting began with logistics and opening remarks.

Opening Remarks

Gabe Klein began by expressing his gratitude to the EVWG members. He stated that engaging the private sector helps keep the Joint Office’s strategies grounded in achievable and practical goals. He acknowledged that the presidential election and upcoming change in administration may bring changes in priorities and emphasized that the Bipartisan Infrastructure Law is indeed bipartisan and that it delivers benefits regardless of political affiliation. Investments in electric vehicles (EVs) and charging infrastructure are creating jobs and revitalizing communities. In addition, private sector involvement creates continuity that transcends administration changes.

Gabe Klein then shared Joint Office updates, which include upcoming awards for the current FOA, “Communities Taking Charge.” He noted that these new awards from the Joint Office will promote multiple aspects of EV deployment. Gabe also commented that the recommendations from the EVWG subcommittees, in particular the charging subcommittee, are well crafted and practical and represented real-world considerations.

Rachel Sack walked through the meeting logistics and transitioned to the subcommittee recommendations.

Subcommittee Recommendations

Charging Network Subcommittee

John Bozzella presented on behalf of the Charging Network Subcommittee. He introduced that the subcommittee’s recommendations started with the customer. The recommendations focused on how charging networks could keep customers happy and how the private sector could competitively provide goods and services. The Charging Network Subcommittee produced two recommendations.

The first recommendation was on “myth busting” around the charging experience through a public education and awareness campaign, with a goal of addressing customers concerns around EV driving range and identifying where and when to charge. This recommendation was inspired by previous public-private efforts for technology development and safety, such as the by U.S. DOT National Highway

Transportation Safety Administration’s “Click it or Ticket It” campaign, which increased public awareness on the benefits of seatbelts and airbags. John showed example illustrations to include in the campaign with a message that “charging is the easiest part of driving.” The target audience was the general public, which in part could be reached through points of vehicle sales and rentals.

The second recommendation was to incentivize the private sector to ensure positive customer charging experiences. The minimum NEVI standards include customer-facing requirements addressing accessibility, payment, uptime, and station configuration. The private sector should be encouraged, though not required, to similarly provide positive customer experiences at non-NEVI funded stations. This recommendation could be implemented via a program similar to the New Car Assessment Program (NCAP) and should be administered by an entity qualified to award a seal of approval on a charging station. The audience for this program was implementors of EV charging infrastructure.

During discussion, **Dean Bushey** expressed support for the first recommendation and advised tailoring the messaging to specific audiences. **Sharky Laguana** responded that the committee envisioned a modular approach with messaging that could be added or removed for a given audience.

Nadia El Mallakh asked for clarification on key partners. **John Bozella** responded that partners could potentially include car manufacturers engaged in selling plug-in EVs, rental car agencies, charge point providers, and electrical utilities.

Andrew Koblenz commented that for the second recommendation, the administering entity should be a publicly recognized brand such as JD Power or the American Automobile Association (AAA).

Rakesh Aneja suggested using different outreach tools depending on the specific message. For example, the campaign could use social media for high-level messages versus a webinar to cover more detail. He also proposed using similar types of tools across subcommittees.

Michael Berube commented that both recommendations were strong and innovative. On the first recommendation, he commented that the need is more in addressing customer questions and uncertainties and less on myth busting. He requested more information on who would implement the campaign. On the second recommendation, Michael compared the recommendation to hotel star ratings and suggested using the program also to communicate the charger technology type and vehicle compatibilities. **John Bozella** agreed that customer expectations should be aligned with the charger type. **Sharky Laguana** suggested communicating charger type in terms of approximate charging time rather than charging levels or kilowatts to address customers’ main charging concerns.

Medium- and Heavy-Duty Subcommittee

Dean Bushey presented on behalf of the Medium- and Heavy-Duty Subcommittee. He acknowledged the helpful cross-talk among subcommittees and walked through five recommendations.

The first recommendation was to better communicate the unique considerations around owning and operating electric trucks. Through public outreach at truck events, information should be shared on

battery size and design, insurance cost, operational cost on a per-mile basis, maintenance costs, cab type, vehicle depreciation and afterlife value, residual cost of the battery, the cost to charge at a depot versus on the road, vehicle weight and impact payload, and refueling time.

The second recommendation was to engage industry on better classifying trucks according to their size, use case, and operational characteristics. The audience for this recommendation should include the public so they understand the complexities in classifying trucks.

The third recommendation centered on the power needed to charge trucks. Currently, it is difficult to understand where power is available and how much will be needed. Transparency and engagement with utilities could help with load planning and power delivery.

The fourth recommendation was to reach the “second tier of implementors” such as policy and budget makers. It is important to recognize that different types of users need different levels of engagement.

The fifth recommendation was to promote research into new technologies.

During discussion, on the first recommendation, **Cassie Powers** asked how the recommendation would scale the previous efforts of the Department of Energy around total cost of ownership. **Dean Bushey** responded that the work of the EVWG helps add a stamp of approval to existing efforts. **Rakesh Aneja** recommended communicating the assumptions that go into the distributed information and suggested that the EVWG align on assumptions in general. **Andrew Koblenz** asked who is being educated with this recommendation. **Dean Bushey** responded that individual truck owners, fleet owners, infrastructure providers, and policy makers all need more information on total cost of ownership and other considerations unique to trucks. Original Equipment Manufacturers (OEMs) are more knowledgeable and can help communication the information.

Michael Berube commented that the full set of recommendations for the subcommittee could be sorted into two groups. One is a tool to understand total cost of ownership and other considerations. The second is aimed at communicating the unique operational needs of trucks.

On the third recommendation, **Nadia El Mallakh** commented that there is overlap with the upcoming recommendations from the grid integration sub-committee and proposed harmonizing the two subcommittees’ recommendations. She suggested expanding the audience to include state regulators, state energy offices, and others that control what a utility can do. She also highlighted Electric Power Research Institute (EPRI) and EVs2Scale2030 as good examples of data sharing and noted that insight into OEM and fleet operators’ information on times of use and where vehicles are dwelling would be important for planning. **John Bozella** added that the third recommendation would support EVs more broadly, including light-duty vehicles. **Rakesh Aneja** agreed in the co-benefits to light-duty EVs and suggested thinking about which policy recommendations could emerge.

Grid Integration Subcommittee

Nadia El Mallakh presented on behalf of the Grid Integration Subcommittee. She thanked the subcommittee members, full EVWG, and the Joint Office, and presented two recommendations,

The first recommendation was to enable proactive infrastructure investments to more effectively prepare for new grid load. Currently certain parties are hesitant to make grid investments under uncertain demand which could result in stranded, unused assets. The proposed solution is to have federal, state, utility, and other key decision makers such as OEMs work to improve data forecasting practices to reduce and distribute the risks of proactive investments. The specific actions are to (1) develop new data prediction capabilities, (2) build consensus on the risk profile of predicted EV needs, (3) identify risk management mechanisms, and (4) identify funding to execute strategies.

The second recommendation was to develop a common communication protocol that supports managed charging at scale. Managed charging is the shifting of vehicle charging to times that more efficiently utilize the grid. While it has been piloted across the country, managed charging needs to be scaled up to defray certain costs. The specific action is to create a consortium of key stakeholders led by DOE to develop standard data requirements and communication protocols and to identify gaps, limitations, and types of funding sources needed.

During discussion, **John Bozella** noted that the auto industry is really focused on the second recommendation and that the Alliance of Automotive Innovation released a white paper on vehicle grid integration and is ready to support this work.

Ruth Gratzke commented that both recommendations are spot-on and that her customers often ask about accelerating this as well as funding since utilities are not ready to step up without confirmed demand. On the second recommendation, managed charging can alleviate the strain on the grid that is experienced today. Ruth suggested also including standards around bidirectional charging. **Dean Bushey** commented that truck drivers may not have flexibility on charging times and suggested looking into supporting distributed energy resources, microgrids, or power storage. **Michael Berube** stated that customers aren't looking to load shift while fast charging, but that depot charging is a different use case.

In response, **Nadia El Mallakh** acknowledged the spectrum of options for managed charging, from rate design to vehicle-to-X, and proposed a focus on managed charging as a first step in establishing basic standards while keeping in mind that technologies will change. **John Bozella** responded that it is important the customer understand the value of EVs to the grid.

Nadia El Mallakh concluded with a suggestion previously conveyed by **Danielle Sass Byrnett**, who was not able to attend this EVWG meeting, that the word "proactive" in the first recommendation be removed and replaced with a focus on "reducing risk". Nadia noted that this revision would require additional discussion within the subcommittee.

Public Comment

Paul Verchinski of the Maryland Zero-Emission Electric Vehicle Infrastructure Council referred the EVWG to the Electric Vehicles Supply Equipment Work Group put together by Public Service

Commission as result of Senate Bill 951 that deals with customer charging experiences. He warned that it has been difficult to get charging networks to voluntarily adopt standards and recommends that the EVWG consider recommending requirements.

Tom Shields is building a medium- and heavy-duty charging depot in California. He commented that it was helpful to hear the Medium- and Heavy-Duty Subcommittee discuss the landowner perspective and that he appreciates the Subcommittee's work.

The EVWG received a public comment from **Sean Ackley** of Einride post meeting. Sean noted the importance of a charger reservation system for fleet operators engaging with public charging infrastructure and identified the prevention of queuing as a benefit to DOTs and the general public. Sean also advocated for a standard method of calculating general cost parity for electricity as a fuel when comparing to diesel and gasoline. On grid integration, Sean advocated for pairing recommendations around V2X architecture with recommendations in how infrastructure development can participate in ISO/DSO and grid resiliency and ancillary service contracting with local power companies. Sean also commented that recommendations around power offtake programs benefiting utility and infrastructure developers can unlock interest in EV infrastructure deployment projects.

Optional Voting

Scott Kubly led the EVWG through voting on each of the nine recommendations to decide if the recommendation was ready for a final vote or if it needed additional editing.

Charging Subcommittee, Recommendation #1

John Bozella stated that the comments received would be easy to address while packaging the recommendation. The EVWG agreed to move this recommendation to a final vote.

Charging Subcommittee, Recommendation #2

John Bozella and **Andrew Koblenz** proposed editing the recommendation to mention the importance of a publicly recognized awarding institution. **Sharky Laguana** asked if the recommendation was to ask the Joint Office to establish the rating system. **John Bozella** responded no and clarified that the awarding entity would need to be some other credible arbiter. **Sharky Laguana** commented that this recommendation needs more conversations on what people are willing to do. The EVWG declined to move this recommendation to a final vote.

Medium- and Heavy-Duty MDHD Subcommittee, Recommendation #1

Dean Bushey commented he would like to revise the recommendation to include existing tools and the audience but otherwise thinks the recommendation can proceed to a final vote. **Nadia El Mallakh** stated that it is important to clarify who is going to fund and collaborate on the effort. **Dean Bushey** responded that he anticipates an industry and government collaboration but that he will take that question back to the subcommittee. The EVWG declined to move this recommendation to a final vote.

Medium- and Heavy-Duty MDHD Subcommittee, Recommendation #2

The EVWG agreed to move this recommendation to a final vote.

Medium- and Heavy-Duty MDHD Subcommittee, Recommendation #3

Dean Bushey commented that he would like to merge this recommendation with a related Grid Integration Subcommittee recommendation. The EVWG declined to move this recommendation to a final vote.

Medium- and Heavy-Duty MDHD Subcommittee, Recommendation #4

Dean Bushey commented that the audience needs to be clarified. **Nadia El Mallakh** also suggested adding who will be involved in implementation. The EVWG declined to move this recommendation to a final vote.

Medium- and Heavy-Duty MDHD Subcommittee, Recommendation #5

Nadia El Mallakh asked for clarification on the term “promote research”. **Dean Bushey** agreed the recommendation was vague and needed to be more actionable. **Michael Berube** commented that R&D often involves both industry and government and suggested adding language on “government working collaboratively with industry.” **Rakesh Aneja** proposed as a specific action a memo clarifying that the goal is decarbonization which is technology agnostic. The EVWG declined to move this recommendation to a final vote.

Grid Integration Subcommittee, Recommendation #1

Dean Bushey reminded the EVWG of interest in merging this recommendation with one of the Medium- and Heavy-Duty Subcommittee recommendations. **Cassie Powers** also reiterated earlier feedback to remove the term “proactive”. The EVWG declined to move this recommendation to a final vote.

Grid Integration Subcommittee, Recommendation #2

John Bozella voiced support in moving the recommendation to a final vote subject to minor refinements. **Nadia El Mallakh** confirmed that the EVWG is fine with the scope of this recommendation. The EVWG agreed to move this recommendation to a final vote.

Scott Kubly summarized that three recommendations are proceeding to voting while six will be revised for consideration in upcoming EVWG sessions.

Meeting Adjourned November 13, 2024 at approximately 5:00 pm EST.

Respectfully Submitted:
Dr. Rachael Nealer
Designated Federal Officer



I hereby certify that these meeting minutes of the November 13, 2024 EVWG meeting are true and correct to the best of my knowledge.