

Meeting Minutes

Interagency EV Working Group

Date: March 31, 2023 **Time:** 2:00PM

Location: SCDOT Headquarters – 955 Park Street, Columbia, SC – Room 306

Attendees:

Members of Working Group
Justin Powell, SCDOT
Rob Bedenbaugh, SCDOT
Emmett Kirwan, SCDOT
Eddie Cogdill, SCDOC
Sym Singh, Governor’s Office
John White, SFAA
Rhonda Thompson, SCDHEC
Nina Staggers, SCDEW
Sara Bazemore, ORS

Other Attendees
Cynthia Davis, SCDOC
Steve Farrell, SCDMV
Mike Bullman, SCDOE
Rene Kelly, SC Energy Office
Bryan Grady, SCDEW
Rosie DeAnnuntis, SCDEW
Alan Davis, SCDEW
Taylor Hendrix, SCDEW
Jennifer Patterson, SCFOR
Glen Bramlitt, SCDOT
Kelly Moore, SCDOT
Ron Hinson, SCDOT
Brennan Groel, HDR
Jonathan Chasteen, HDR
Jim Porth, CECS
Michael Fields, SCCPMA
Mitchel Cooper, Kimley-Horn
Lee Williams, Michael Baker
Randy Johnson, SC Technical College System
Mark Lester, CDM Smith



1. Welcome & Introductions

- 1.1. This meeting was live streamed and is available for future viewing at:
www.scdot.org/nevi

2. Approval of Meeting Minutes from February 10, 2023 Meeting

- 2.1. The meeting minutes from February 10, 2023 were presented and the working group was offered an opportunity to address any concerns. None were noted and the minutes were accepted via unanimous vote.

3. Feedback from SC Restaurant and Lodging Association

Rescheduled to May 26, 2023

4. Feedback from SC Convenience and Petroleum Marketers Association

- 4.1. M. Fields gave a presentation that highlighted some of the feedback they have received:
- 4.1.1. Five key areas to focus on:
 - 4.1.1.1. Understand that EVs are here to stay.
 - 4.1.1.2. Take the time to do things right the first time by considering all resources and feedback.
 - 4.1.1.3. Keep all stakeholders updated on new development and future plans.
 - 4.1.1.4. Allow the industry to compete by not ensconcing the market.
 - 4.1.1.5. Understand that the Marketers Association are willing partners.
 - 4.1.2. Consider edits to the EV Plan that would not block out the private sector.
 - 4.1.3. Maintain the “non-commercial” status of rest stop facilities.
 - 4.1.4. Consider plans for charging station placement that are convenient for the traveling public.
 - 4.1.5. Expressed a desire to be included in discussions that address workforce gaps.
- 4.2. **Q** by J. Powell – What are a few of the reasons some stakeholders in the membership have chosen not to be a part of the EV business?
- 4.2.1. **A** by M. Fields – For now, some smaller marketers have not yet outlined their financial structures in order to commit. While some are beginning to show more interest, others do not have this in their active business model.
- 4.3. **Q** by S. Farrell – What percentage of the Marketers Association has opted out?
- 4.3.1. **A** by M. Fields – There is no accurate data yet, but is minimal. Mr. Fields will look into this data for a later discussion.

5. Update from Department of Education on Bus Electrification

- 5.1. M. Bullman gave an update on the current focus of the electrification of buses. Some highlights included:
- 5.1.1. There are currently about 5600 school buses in the system.

- 5.1.2. The fleet has gone through an upgrade overhaul in the past 8 years. At the beginning of the upgrade, EV buses were not a financially viable option; therefore, diesel engines were chosen.
- 5.1.3. New developments opened up new options and now the fleet owns 453 propane buses.
- 5.1.4. Studying costs in relation to the advantages and disadvantages of replacing the current fleet with EVs. EV buses are roughly three times the cost of diesel buses.
- 5.1.5. An analysis was performed on 44 school districts to determine the status of each bus and if it could qualify for EPS funding.
 - 5.1.5.1. Approved for 164 buses over 17 districts.
 - 5.1.5.2. Each of the 17 districts will receive between 4 and 16 buses. Orangeburg will receive 20 total buses (16 from the EPA funding and 4 from the ARP program).
 - 5.1.5.3. Currently soliciting chargers for each site.
 - 5.1.5.4. In addition, EPA approved \$20k/bus for infrastructure improvements.
 - 5.1.5.5. 2 charging sites will belong to the Department of Education, while 15 sites will belong to the school districts. The wait time for these chargers is approximately 12 to 15 months away, as of the date of this meeting.
 - 5.1.5.5.1. While the current focus is infrastructure, a future focus will be energy storage possibilities.
 - 5.1.5.6. Operating costs will see a significant cost benefit as the goal is to improve from \$0.80/mile to \$0.20-\$0.25/mile.
- 5.2. **Q** by E. Cogdill – Who currently incurs the cost of fuel for the buses?
 - 5.2.1. **A** by M. Bullman – The Department of Education.
- 5.3. **Q** by R. Bedenbaugh – What level chargers are planned to be installed?
 - 5.3.1. **A** by M. Bullman – DC Level 3 chargers that will be provided from a South Carolina company. Currently, 80% of the EV buses can run their route without the need for a midday charge.
- 5.4. **Q** by R. Bedenbaugh – What areas do you need to focus on for updating the workforce to adapt to EV charging?
 - 5.4.1. **A** by M. Bullman – Charger training and certifications are planned as they are a contingency of the fund acquisition.
- 5.5. R. Bedenbaugh requested that M. Bullman provide a future update on lessons learned through the process.

6. Overview of new EV Workforce Study by Department of Employment and Workforce

6.1. Nina Staggars and Dr. Bryan Grady of SCDEW, provided a summary of their EV Workforce Study.

6.1.1. Dr. B. Grady highlighted the basis of the data what was used in the study:

6.1.1.1. Provided a succinct background of the need for the study.

6.1.1.2. Because there is no standard of the EV industry itself, the data for the study was limited.

6.1.1.3. The current workforce consists of vehicle manufacturing, battery manufacturing, service and maintenance, and infrastructure.

6.1.1.4. There is a large need by EV companies to hire computer occupations and software developers.

6.1.1.5. South Carolina is not currently providing enough professionals to fill all of these positions.

6.1.1.6. While the study shows that most current employment demands require secondary education credentials, there are still a large amount of employment opportunities that do not.

6.1.2. N. Staggars highlighted some of the findings of the study:

6.1.2.1. The EV ecosystem is growing and many new companies are being established.

6.1.2.2. The EV workforce demands are outpacing the supply of qualified workers.

6.1.2.3. There is a need to tap into the surrounding population pools in order to build an adequate EV workforce. Some recommendations include:

6.1.2.3.1. Increasing awareness

6.1.2.3.2. Develop educational pathways

6.1.2.3.3. Promote work-based programs

6.1.2.3.4. Invest in up-skilling, retention, and backfilling

6.1.2.3.5. Invest in transportation benefits and child-care assistance

6.1.2.4. States are working together to develop workforce strategies. SCDEW provided the following questions to the Interagency EV Working Group for their consideration:

6.1.2.4.1. Are we missing some occupations?

6.1.2.4.2. Are there additional strategies that are needed?

6.1.2.4.3. Are there other stakeholders the state should engage?

6.1.2.4.4. Is there any other information that should be included in a final study?

6.1.2.5. A few key next steps are to continue engaging with private sectors and government partners, and continuing to research ways in which South Carolina has a competitive workforce.

6.2. Q by S. Singh – Were manufacturing alliances included in the collection of data?

6.2.1. A by N. Staggars – not for the data portion, but in general conversations.

- 6.3. Comment by S. Singh – future studies would benefit from showing data on how many colleges and tech schools offer these EV program curriculum so that we can better understand the educational needs.
- 6.3.1. Dr. Grady provided feedback that there is data to show that skills were researched, but that particular data was not available.
- 6.4. Q by S. Singh – were charging station jobs included in the data?
- 6.4.1. A by Dr. Grady – yes, there was data included, but if needed, there is the ability to drill down into specifics.
- 6.5. Q by R. Thompson – is there data available to include environmental engineering jobs and permitting?
- 6.5.1. A by Dr. Grady – yes, that particular data can be included.
- 6.6. Q by R. Bedenbaugh – is there the capability to track job growth on a geographical level within an identified disadvantaged community?
- 6.6.1. A by Dr. Grady – yes, the data can incorporate what has been researched as well as available consensus data.
- 6.7. Q by R. Bedenbaugh – is there similar data for communication and cybersecurity?
- 6.7.1. A by Dr. Grady – yes, there is a similar analysis that was conducted that can be included in the future.
- 6.8. Q by R. Bedenbaugh – are there any strategies that are being discussed to help refine data to know how teleworking is impacting the industry?
- 6.8.1. A by Dr. Grady – the data is based on businesses that are active in the state of South Carolina; however there are studies that show results of surveys on a much larger geographical scale.
- 6.9. Q by E. Cogdill – is there data that would project how much the workforce could grow if transportation and child care assistance benefits were offered?
- 6.9.1. A by Dr. Grady – yes. There is a survey that was conducted that summarized barriers workers faced from being more active in the workforce.
- 6.10. R. Bedenbaugh asked for N. Stagers to provide links to websites or reports that would be beneficial to distribute. [ACTION ITEM]

7. Overview of Recent Changes to NEVI Requirements

- 7.1. R. Bedenbaugh provided an overview of the recent changes to the NEVI program – highlighting areas such as:
- 7.1.1. A final scope is being developed to be shared with the Working Group by April 14.
- 7.1.2. During the April 25 Working Group meeting, we will discuss any questions that are generated by the scope. The next step will be to close and deliver to the procurement partners for advertisement.
- 7.1.3. Webinars for EV focused site design, contracting and procurement, evaluating sites, etc. will soon be distributed.

- 7.1.4. Buy America conversations are ongoing as this is an important factor to meet NEVI requirements.
- 7.1.5. An EV Infrastructure Plan is scheduled for late 2024.
- 7.1.6. Actively working to schedule discussions with private sector charging entities – aside from utility companies.
- 7.1.7. Currently there are five NEVI compliant, DC fast charger sites on various commercial properties in the state.
- 7.1.8. Charging and fueling infrastructure program has been unveiled. SCDOT will not be administering this program, as it is a program administered by FHWA. A link will be provided. [ACTION ITEM]
<https://www.fhwa.dot.gov/environment/cfi/>
- 7.2. R. Bedenbaugh asked for the Working Group to reach out to private sector entities and vendors and provide a list of speakers to future meetings. [ACTION ITEM]
- 7.3. The April 25 meeting will largely include utility topics.
- 7.4. Continue to register for updates of the EV Working Group developments.

8. The meeting was adjourned at 3:34PM.

Summary of Action Items:

- 1. Compile a list of useful websites and links to the EV Workforce Study. [N. Staggers]
- 2. Provide a link to the FHWA Administered Charging and Fueling Infrastructure Program. [R. Bedenbaugh]
- 3. Provide a list of future speakers from private sector entities and vendors. [All Members of Working Group]