

NAFCC - Corridor Council

AGENDA & NOTES

September 15, 2022



Attendance, Agenda, Meeting Notes, Chat & Additional Items are all in this document.

Call started at 1:00pm ET / 10am PT. Meeting held virtually via Zoom.
Zoom managed by Tillman, Overly, Staley. Notes taken by Adibi, Overly.
"Proposed Federal Minimum Standards for NEVI" crafted by Herrmann.

Attendees (51):

STATE DOTS & FHWA REPS (and related)

ADECA = Shonda Gray	LA DOTD = Kevin Reed	OK, SCORTPO = Kyle Henry
AR DOT = Aaron Pineda	LA GMG = Cedric Grant	Tx DOT = Ryan Granger
FL DOT = April Groover Combs	MD - MDE = Bobbie James	TX FHWA = Justin Morgan
KS DOT = Tami Alexander	MI DOT = Niles Annelin, Zach Rable	Utah DOT = Lyle McMillan
KS FHWA = Javier Ahumada, Eric Deitcher	NC DENR = Robin Barrows	VA DOT = Erin Belt
	OK, SWODA (RTPO) = Julie Sanders	

CLEAN CITIES COALITIONS & FHWA/DOE-CC REPS

AL = Michael Staley, Shannon Tillman	KS = Brandt Hertenstein, Jenna Znamenak	OH = Eleanor Jersild
AR = Jason Willey	LA = Ann Vail, Tyler Herrmann	OK = Eric Pollard
FL = Elizabeth De Jesus, Doug Kettles, Alexander Kolpakov, Marci Larson, Alisha Lopez, Elizabeth Myron	MI = Maggie Striz Calnin, James Leonard	SC = Rene Kelly
GA = Sumner Pomeroy	MN = Lisa Thurstin	TN = Jonathan Overly, Lizzie Gaviria
IA = Abbie Christophersen	NC = Sean Flaherty, Paul Moon, Sara Nichols	TX (DFW) = Soria Adibi
KY = Emily Carpenter	NY = Rita Ebert	VA = Alleyn Harned
		WV = Kelly Bragg
		NETL = David Kirschner
		DOE = Trev Hall

MAIN PURPOSES OF THE COUNCIL:

1. Fully support DOT and FHWA Alternative Fuel Corridor objectives
2. Facilitate **visually consistent** DOT/FHWA Alternative Fuel Corridor Signage Programs across all our states, included for **both Identification (corridor) and Directional (wayfinding) Signage**
3. Establish regular calls and meetings with involved state DOT officials to develop criteria for developing effective Alternative Fuel signage programs

AGENDA

UP FRONT

1. Review the fact that the name has changed; website updated; know the new acronym - **NAFCC**.
2. Welcome any new members into the group!
New attendees from the June meeting: Jared Schwennesen

Aaron Pinedo - AR DOT; Javier Ahumada & Eric Deitcher - KS FHWA; Niles Annelin & Zach Rable - MI DOT; Kyle Henry - South Central OK RTPD; Ryan Granger - TX DOT; Erin Belt - VA DOT. Clean Cities coalitions = Sean Flaherty - NC; Eleanor Jersild - OH; Lizzy Gaviria - TN.

3. Any updates from FHWA on MUTCD - Scarpino, Turchetta, Costa?
Scarpino – “hope to meet end of Sept. deadline for feedback to states on their plans.”
4. Louisiana Clean Fuels Coalition undertaking review of all state NEVI plans
5. Important for states to consider where next stations are in adjoining state when developing corridor identification signage

State DOTs - “How can your Clean Cities coalition(s) help in your state with signage?”

- Make map of potential locations for corridor ID signs?
- Have you (CCs and state DOT) discussed how you may implement wayfinding/directional signage on interstates? *General service or specific service (blue logo, TOD signage).*
- If you need help developing corridor nominations, please lean on your coalition as they have resources to do so!

DOTs & NEVI state plans

- Minus feedback you get from FHWA on your plan, do you have a rough idea of when you plan to release round 1 of funding?
- Are you planning on releasing a competitive announcement to put out the funds? Will it be a typical release with open period and closing when proposals are due?
- Is any state planning on using per DCFC unit maximums or another approach beside using only 80% of the maximum of an applicant's proposal?
- How many states have come up with their CRITERIA by which they will evaluate the received proposals?
- How are you developing your criteria?

Waiver of Buy America Requirements

Tami Alexander of Kansas DOT will lead the discussion.

MEETING NOTES

DOTs & NEVI state plans

David Kirschner provided map of 35 approved plans that was released yesterday: List of approved NEVI plans: https://www.fhwa.dot.gov/environment/nevi/ev_deployment_plans/

- Minus feedback you get from FHWA on your plan, do you have a rough idea of when you plan to release round 1 of funding?

Ann- plan to award in June if stars line up.

Tami- Kansas release Request for Interest and RFP in Q1 of 2023.

Niles- Likely first quarter of spring 2023.

- Are you planning on releasing a competitive announcement to put out the funds? Will it be a typical release with open period and closing when proposals are due?

Michael- What is perspective of pending rulemakings and putting standards out before?

Tami- Waiting on final guidance so will play into final decisions on giving exceptions etc.

Jonathan- In TN spent a lot of time going over criteria and how evaluate proposals

How does DOT manage road project and eligibility requirements in comparison to DOE? How can move applicants from rounds?

Kelly- In the transportation world, traditionally put out RFQ.

- Is any state planning on using per DCFC unit maximums or another approach beside using only 80% of the maximum of an applicant's proposal?
 - April Groover Combs- In FL, agree with competitive, but also look into innovation at each site and that all sites don't need the same type of things- higher than 150, pull-through, back up solar with canopy that put in category of "NEVI Plus" for visitors to make sure have great experience to make sure they come back.
 - Jonathan- Train to think from the perspective of the consumer; With pull through, discussed with TDOT and not sure if will be required but hope it will be.
 - Soria- Heard EVSE/OEM caution that pull through may require more charging cable or conduit to NEVI sites with those capabilities.
 - Michael- Concern about charging units and utility upgrades.
 - Alleyn- In VA, Sec. of Energy project stalled by waiting for transformers. Also can be delayed by storms. Can connect folks to 3 companies.
- How many states have come up with their CRITERIA by which they will evaluate the received proposals?
- How are you developing your criteria?

Erin Belt, VDOT- Releasing RFI that put in chat that will include bonus scoring for NEVI that are TBD.

Kevin Reed- In LA, started discussion on additional criteria,

Ann- In state plan have charts on what looking at for additional criteria as recommendations

Waiver of Buy America Requirements

Tami Alexander of Kansas DOT will lead the discussion.

Believe Timeline of Waiver needs to be extended- set to expire at the end of this year.
Think awardee should be given a guarantee that can complete project.

Would love to hear about OSHA certification- would love to learn more about, and ancillary equipment of chargers and if would need to be included in waiver for charger.

Jonathan- Only 3 companies that are Buy America compliant to our awareness- ChargePoint, Freewire and Rhombus,

Tyler- Also BCTE (?)is Buy America compliant. ChargePoint does not have OPCC so is not compliant with that requirement of NEVI

Kelly- DC America in W VA is creating DCFC that is Buy America compliant.

Tami- Comments due Sept 30th

Tyler has overview on uptime definition.

CHAT

From khenry to Everyone 01:09 PM – Kyle Henry-South Central Oklahoma Regional Transportation Planning Organization-my mic is not working.

From Maggie Striz Calnin (MI Clean Cities) to Everyone 01:11 PM – Great - thanks, Ann. We'll fill in what we can on those two efforts through the files you've shared. (MI Clean Cities).

From David Kirschner - NETL to Everyone 01:11 PM – List of approved NEVI plans:
https://www.fhwa.dot.gov/environment/nevi/ev_deployment_plans/

From Maggie Striz Calnin (MI Clean Cities) to Everyone 01:16 PM – Go MI NEVI plan collaboration :) MI NEVI plan among those approved yesterday.

From Ann Vail to Everyone 01:16 PM – As an EV owner - I find the way-finding signs more helpful than the general corridor signs. The small EV signs with an arrow pointing to a chargers are all over Colorado.

From David Kirschner - NETL to Everyone 01:19 PM – 35

From Ann Vail to Everyone 01:22 PM – How many states have started installing these more simple/smaller wayfinding signs? Louisiana will host an applicant expo - likely at the end of January or early February

From Sean Flaherty (TJCOG) to Everyone 01:23 PM – NC "phase 1" contracting is scheduled to begin Spring 2023. Public engagement for community-based discretionary deployments / "phase 2" will also begin Spring 2023.

From Erin Belt (VDOT) to Everyone 01:24 PM – Virginia is working to issue an RFI while waiting on federal guidance.

From Alisha Lopez to Everyone 01:25 PM –
<https://www.hdrinc.com/news-and-events/news/2022/hdr-selected-help-shape-future-electric-vehicle-infrastructure-florida>

From Tami Alexander to Everyone 01:38 PM – KDOT also recommended support for pull-through charging. We have a travel store operator in Kansas that has placed their EV chargers on the fueling island, like a gas pump.

From Brandt Hertenstein to Everyone 01:39 PM – I always like this video of the way to rethink EV charging at fueling stations - from Sweden I believe: <https://www.youtube.com/watch?v=4TVohXHjLro>

From Alleyn Harned to Everyone 01:46 PM – Extra stock manufacturing RFI responses library that are nonproprietary could be also shared on NEVI site driveelectric.gov or onto alternative fuel data center, and to epa's energy star page

From Erin Belt (VDOT) to Everyone 01:47 PM – That's a great idea, Alleyn. It's helpful not spending time hunting the information. Trash receptacles are another big one in addition to restrooms.

From Ann Vail to Everyone 01:50 PM – Good point Tami

From Maggie Striz Calnin (MI Clean Cities) to Everyone 01:52 PM – Rhombus is MI Based ;)

From Land of Sky Clean Vehicles to Everyone 01:53 PM – We think we have a Rhombus going in for the V2G tech on the Cherokee School Bus

From Maggie Striz Calnin (MI Clean Cities) to Everyone 01:54 PM – That makes sense Land of Sky - the IC School Buses that are EV if it has V2G capability it is Rhombus built.

From Tyler Herrmann (LCF - he/him) to Everyone 01:55 PM – I have a relatively thorough summary of the proposed minimum standards that mentions that software requirement if anyone would like me to send that summary to you.

From Michael Staley to Everyone 01:55 PM – tyler that would be great

From Maggie Striz Calnin (MI Clean Cities) to Everyone 01:56 PM – Yes, Please, Tyler.

From Land of Sky Clean Vehicles to Everyone 01:56 PM – This NC group also is claiming buy America compliance <https://www.atompower.com/>

From Emily Carpenter to Everyone 01:58 PM – <https://www.dc-america.com/>; Out of WV. Had their charger at Sustainable Fleet conference in NC.

From Tami Alexander (KDOT) to Everyone 02:00 PM – KDOT comments on the uptime requirements included concerns that 97% uptime could be met.

From Maggie Striz Calnin (MI Clean Cities) to Everyone 02:01 PM – That's a good point re: defining uptime... With gasoline - MI Weights and Measures division regulates/enforces that you're getting what you were sold (liquid fuel), I suppose electric metering can help to know you're getting electricity volumes you pay for. But - I don't know if there is a requirement around a gas/diesel station "uptime". Meaning does the thing work, period, regardless of volume of fuel delivered.

From Erin Belt (VDOT) to Everyone 02:02 PM – Thanks for the great information and coordination.

ADDITIONAL ITEMS

Kansas DOT Notes on the Buy America Waiver

Jonathan,

Below are KDOT's first thoughts on the Buy America waiver for EV chargers. We are planning to do some additional research on OSHA certifications and BA compliance of electrical equipment before we submit our final comments which may change.

vvvvvvvvvv
Cory and Matt,

I've had a chance to go through FHWA's proposed Buy America waiver for EV chargers. The key points are below:

- Removal of EV chargers from the existing Manufactured Products General Waiver
- Complete waiver of BA requirements on EV chargers installed in 2022, followed by a phase-out of waiver eligibility in 2023
- Starting January 1, 2023, only EV chargers with final assembly in the US would be eligible for the waiver
- Starting July 1, 2023, only EV chargers with final assembly in the US and containing 25% or greater cost of US manufactured components would be eligible for the waiver
- Starting January 1, 2024, only EV chargers with final assembly in the US and containing 55% or greater cost of US manufactured components would be eligible for the waiver
- Review of the waiver after 5 years
- Comments on the proposed waiver are due by September 30, 2022.

FHWA is asking for comments on the timeline of the waivers, the proposed meaning of 'EV Charger', 'cost of components' and 'installation' under the waiver, consideration of other dates for waiver eligibility, and other issues pertaining to OSHA/Energy Star requirements, exclusion of predominantly steel/iron components, and a consideration of different waiver schedules for DCFC/L1/L2 chargers.

My thoughts on what KDOT comments could include:

- **Waiver timeline needs to be extended** - Final approval of state plans isn't expected until Sept 30, 2022. Unless plans were made and equipment ordered months ago, no chargers will be installed before the US assembly waiver expires. KDOT expects to issue an RFP for NEVI funded stations Q1-23, so installation in 2023 is also unlikely. For the same reasons FHWA lists in the proposed waiver, I don't believe the EV charging industry will be adequately prepared to meet demand this quickly. Recommend an extension of at least 1 year, preferably 2 on the waiver eligibility timeline.
- **Change waiver eligibility to date of obligation of funds** – This would allow awardees the ability to go forward in good faith with a more exact understanding of what their BA requirements would be. This date could be the date the award contract is signed or the purchase order date of the equipment. This gives awardees a certainty that their equipment will be eligible for reimbursement regardless of any delays in shipping, installation, etc. that may be out of their control.
- **Recommend OSHA or other certification** – I'm not adequately-versed in OSHA certified lab requirements but believe it would be important that there be some sort of certification on the charging equipment before it can be reimbursed under the NEVI program.
- **Recommend inclusion of "manufactured products that are external to the EV charger itself but in its immediate vicinity and essential to its function or operation" in the waiver** – This would allow panel upgrades and other necessary power upgrades to be covered by NEVI funds. I'm not an electrician, so this may not be necessary as all standard electrical equipment may already comply with BA requirements.

I don't have any specific recommendations on the other topics of interest to FHWA. I'll find a time for us to go over these comments next week and send a meeting invitation. I've also attached a pdf of the proposed waiver.

Tami Alexander | Kansas Department of Transportation | Transportation Electrification Manager
Mobile: 785.217.7985 | Tami.Alexander@ks.gov

Tyler Herrmann (Louisiana Clean Fuels Coalition) - He pulled together this “Proposed Federal Minimum Standards Summary” (THANK YOU TYLER)

- **Quarterly data submissions (p.7 and p.43/44; Section 680.112(b))**
 - Charging station use
 - § Charging session metrics
 - § Energy dispensed per port
 - Reliability, maintenance, and installation cost
 - § Charging station uptime
 - § Total monthly cost of electricity paid to operate the station
 - Demand charges
 - Energy charges (\$/kWh)
 - Fixed charges
 - Taxes
 - Other fees
 - § Monthly maintenance and repair costs per port
 - Construction and installation data
 - § Detailed costs such as:
 - Installation costs
 - Distributed energy resource acquisition and installation
 - Grid connection and upgrade costs (paid for by charger operator)
- **Annual data submissions (p.7 and p.44/45; Section 680.112(c))**
 - Identifying information about organizations operating, maintaining, or installing EVSE
 - § Whether these organizations participate in State or local business opportunity certification programs such as programs for minority-owned businesses, Veteran-owned businesses, woman-owned businesses, and/or businesses owned by economically disadvantaged individuals for private entities
 - Information about any certifications of these entities
- **Annual report (p.7 and p.45; Section 680.112(d))**
 - Description of community engagement activities conducted in accordance with their approved State EV Infrastructure Deployment Plans
- **With regard to data requirements: Will this data collection place undue burden on states? (p.7/8)**
- **Charging station networking requirements (p.8; p.46/47/48; Section 680.114)**
 - Must be able to communicate through the Open Charge Point Protocol (OCPP) in tandem with ISO 15118
 - § This is meant to help with cybersecurity concerns and;
 - § Reduce the risk of stranded assets in the event that an operator abandons a station
 - Must be capable of “Plug and Charge”
 - Must be capable of “smart charge management”

- FHWA recognizes that these requirements (Plug and Charge; smart charge management) are fairly new, hence the requirement of OPCC communications instead of requiring the use of those capabilities outright

- § Chargers don't need to **use** those capabilities, but they must be capable of it

- "FHWA proposes to include a requirement in Section 680.114(b) that, where credential-based electric charge initiation or payment is implemented, charging networks be capable of communicating with other charging networks to enable customers to use a single credential regardless of the charging network responsible for a charging station." (p. 48)

- Charging networks must be capable of communication with electric utilities and energy providers, or local energy management systems (p.48)

- **Charging stations need to provide real-time status information through a freely accessible API to all third-party software developers (p.8)**

- Location

- Connector type

- Power level

- Status

- Number of ports accessible to persons with disabilities (p.51; Section 680.116)

- Pricing

- § Chargers would be required to display the price of charging in \$/kWh

- In states where "charge for charge" is not allowed, FHWA requests comment on how to best require the display of price on these chargers

- Should it be \$/mi, \$/minute, or some other metric?

- **Price transparency (p.27/28)**

- Public disclosure for the documents concerning the operations of the EV charging stations where price setting is involved, including the procurement process used, the number of bids received, the identification of the awardee, the proposed contract with the awardee, and, in accordance with State law, the financial summary of contract payments (including the price and cost data), and any information describing how prices for EV charging are to be set under the contract.

- **States are subject to 23 U.S.C. 112 and any State procurement policies and procedures per 2 CFR 200.217 (p.28)**

- Level 2 chargers **may** be eligible for NEVI funds after corridors are fully built out (p.31)

- J1772 would be the required connector for a Level 2 charger

- **Non-CCS plugs at DCFC sites (p.31)**

- "Section 680.106(c) would further provide for additional flexibility for the provision of charging ports after the aforementioned CCS requirement has been met. This includes adding permanently attached proprietary connectors to DCFCs. In addition, specific to the use of FY22 NEVI Formula Program funds, DCFCs may include permanently attached CHAdeMO connectors for one or more DCFC charging port."

- § It is not clear to me if "CCS requirement has been met" refers to "fully built-out" or just the 4 plugs per site requirement.

- **Station power level (p.32)**

- Chargers with higher power levels are encouraged “where appropriate to support industry efforts to ensure a consumer’s time to charge is at least comparable to filling a gas tank”.
- “The inclusion of a requirement that each DCFC charging port must be at or above 150kW would benefit the charging industry primarily in communicating standards with individual utilities that may not be accustomed to EV industry preferences.”
- Level 2 chargers (if funded) would need to deliver at least 6kW per port simultaneously across all ports.
- **Charger availability (p.32 and p.50; Section 680.116(b))**
 - Stations must be available for public use 24/7 with minor exception
 - § Isolated or temporary interruption due to maintenance or repairs would not violate this requirement
 - § Stations must have an uptime greater than 97%
 - Uptime must be submitted quarterly and retained for quarterly review
 - Uptime calculation:
 - $Mu = ((8760 - (T_{outage} - T_{excluded}))/8760) \times 100$
 - § Mu = port uptime percentage
 - § T_{outage} = total hours of outage in previous year
 - § $T_{excluded}$ = total hours of outage in previous year for reasons outside operator’s control
 - The FHWA requests specific comment on what additional considerations should be contemplated to ensure EVSE resilience/reliability in floodplains and during natural disasters
- **Payment systems (p.34)**
 - Stations cannot require memberships for access
 - Payment options must include contactless payment methods from all major debit/credit card providers
 - Access cannot be limited by payment type
 - Plug and Charge payment capabilities are required
 - Credit card is not required to be the only payment method to be mindful of the underbanked.
 - FHWA requires multilingual access and access for people with disabilities
- **Efficiency certifications (p.35)**
 - For Level 2 chargers, ENERGY STAR certification is required
 - For DCFC, ENERGY STAR certification is not currently required due to a lack of widespread availability
- **Physical and Cybersecurity measures (p.35/36)**
 - “Section 680.106(h) would require States to implement physical and cybersecurity strategies consistent with their State EV Infrastructure Deployment Plans. This section also includes options for both physical security, such as lighting, siting, driver and vehicle safety, fire prevention, tampering, charger locks, and illegal surveillance of payment devices, and cybersecurity strategies that may be addressed in order to mitigate charging infrastructure, grid, and consumer vulnerability associated with the operation of charging stations. The FHWA encourages States to implement policies to safeguard consumer privacy and requests comments on best practices available in the industry.”
- **Operational period (p.36)**

- Charging infrastructure must operate for at least 5 years (Section 680.106(i))
- 5 years was chosen to provide a reasonable useful life while providing sensitivity to the changing landscape of charging standards/expectations and tech developments
- **Workforce concerns (p.36/37/38)**
 - Installation and maintenance must be done safely by a skilled workforce with appropriate licensing, certification, and training.
 - Workforce used should be diverse.
 - **With exception of apprentices, all electricians installing, maintaining, and operating EVSE must be certified through the Electric Vehicle Infrastructure Training Program (EVITP)**
 - § The participant in the program must provide documentation of a minimum of 8,000 hours of hands-on electric construction experience
 - § <https://evitp.org/>
 - § FHWA is aware of industry concerns with EVITP:
 - It being the sole provider might serve to privatize the licensing process or impose a hurdle to obtaining electricians
 - To address this, States can meet this requirement through another Registered Electrical Apprenticeship program that includes EVSE-specific training
 - § For projects with more than one electrician, at least one must be an apprentice in a registered electrical apprenticeship program – Section 680.106(j)
 - “FHWA recommends that States take proactive steps to work with training providers, workforce boards, labor unions, and other worker organizations, community-based organizations, and non-profits to build a local workforce that will support the EV network”
 - § Funding sources for such programs can be found at https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/resources/ev_funding_report_2021.pdf
 - States should also consider how disadvantaged communities will benefit from added job growth
- **Station customer feedback requirements (p.39)**
 - Stations must allow for customers to report outages, malfunctions, and other issues
 - These reporting mechanisms must be accessible and equitable in accordance with ADA
 - FHWA requests comments on customer service strategies to enter issues as part of the real-time status data outlined in Section 680.116(c)
- **Traffic control devices and signage (p.42)**
 - Requirements are set by existing regulations in 23 CFR part 655 and 23 CFR part 750 for NEVI Formula Program projects
 - Manual on Uniform Traffic Control Devices (MUTCD) is currently being updated (updates due in September, 2022?)
 - Section 680.110