

DOCKETED

Docket Number:	24-EVI-01
Project Title:	U.S. Department of Transportation's Charging and Fueling Infrastructure Grant Program
TN #:	256758
Document Title:	Umpqua Indian Development Corporation Comments - UIDC CEC RFI Response
Description:	N/A
Filer:	System
Organization:	Umpqua Indian Development Corporation
Submitter Role:	Public
Submission Date:	6/10/2024 5:48:05 AM
Docketed Date:	6/10/2024

*Comment Received From: Umpqua Indian Development Corporation
Submitted On: 6/10/2024
Docket Number: 24-EVI-01*

UIDC CEC RFI Response

Additional submitted attachment is included below.

This RFI seeks feedback on the following questions (you need only to answer questions applicable to you or your organization):

1. Please disclose your business type and vehicle class, if applicable. Are you a driver, fleet operator, truck stop operator, installer, manufacturer, utility, public agency, or other? Are you part of a small, veteran-owned, woman-owned, or minority-owned business?

[Seven Feathers Truck and Travel Center](#) is a full-service truck stop and travel center, providing fuel and rest for all classes of vehicles, from passenger vehicles to class 8 long-haul trucks. This travel center is owned and operated by Umpqua Indian Development Corporation, which is a Section 17 federally chartered corporation wholly owned by the Cow Creek Band of Umpqua Tribe of Indians. Additionally, the Tribe also owns and operates the [Umpqua Indian Utility Cooperative](#), which provides utility services to the travel center and other Tribal businesses.

2. Would you consider applying for CFI grant funding for site development if the tri-state agencies are awarded funding?

Yes

3. Do you already operate or are you planning to use zero-emission battery electric MDHD vehicles in the next five years? Please use a 1-5 rating scale where 1= least likely and 5= most likely. Please add additional information regarding your (planned) use of zero-emission battery electric MDHD vehicles as desired.

We are very likely (5) to operate zero-emissions MDHD vehicles within the next five years. We have, amongst the Tribe's businesses, several vehicles in this class that will likely be transitioned to zero-emissions alternatives. We currently have EV charging capacity with [ports for up to twelve \(12\) passenger vehicles](#), and are conducting feasibility studies to explore installing MDHD EV DC fast charging capacity.

4. What type of MDHD ZEV public charging do you anticipate being most important in the next three years (2024-2027) – en route or overnight charging? For what purposes do you anticipate needing public charging infrastructure – drayage, last-mile, delivery, long-haul freight, other?

For our location at Exit 99 on Interstate 5 in Oregon, our economic office ([UIDC](#)) anticipate and are actively engaged in an engineering assessment for how MDHD vehicles may best utilize overnight charging in our existing 8-acre designated lot,

currently hosting commercial vehicles and at capacity nightly. We have received an award from the State of Oregon supporting planning and analysis to assess deployment potential, transitioning our existing MDHD overnight/designated public lot in a priority rural location expanding upon our existing commercial scale truck and travel fueling operation. Our feasibility assessment is modeling potential MDHD need over the next three years as a sequence, to encompass future phases of infrastructure that if this work advances and is funded, will scale with MDHD [transition targets](#) while passenger vehicles will primarily take advantage of en route charging. We have additional undeveloped properties (approximately 40 acres) along rural Interstate 5 that we may develop for zero-emissions large scale designated, public MDHD overnight lots for charging/fueling as well, as we see and track closely the similar usage patterns there. Also key to note; this location is tied in as an emergency staging area in the occurrence of climate events (e.g. 2024's January ice storm) as it is surrounded by dense forest and [Douglas County hosts a dispersed rural population](#) – with many large private acreage properties and rural roadways. Exit 99 is also the first (or last) stop along Interstate 5 at the foot of four 2,000-foot elevation gains, in event of wildfire or other unforeseen issues this surrounding rugged, rural terrain will unexpectedly produce. Tracking federal objectives, related to resilience or [emergency location values](#) are integrated into our system design's strategic considerations.

5. From 2024-2027, what is your first priority for power level and number of charging ports for public en route charging at a station? For public overnight charging? Do you have a second or third configuration preference?

We currently have 12 DC fast charging ports available for public passenger EV charging, and we will install additional capacity as demand increases. Our initial layout for MDHD charging contemplates capacity for up to 5 vehicles upon installation, increasing to 50 vehicles over the next 10 years at our location cited here, initially at Exit 99. This deployment and feasibility assessment ties in to the larger agreed upon standards we see developing (e.g. [CHARIN](#)) that will inform system requirements and scalability. If additional properties owned along Interstate 5 advance, this configuration will expand and be further detailed. We anticipate additional configurations will be explored.

6. Please identify the percentage of pull-in or pull through parking preferred and other desired station configurations at a given site. Describe the vehicle class and vocation considered when making this recommendation if it differs from the information provided in question 1.

All current and anticipated charging stalls for passenger and MDHD vehicles are pull-in (or back-in) accessible. Our MDHD charging stalls will be located in an area separate

from where passenger vehicles and pedestrians traditionally utilize. Both of these configurations are in service of safety, to reduce the potential negative interaction between pedestrians and vehicles, to date our operation at Exit 99 is staffed to ensure these issues are averted – in particular our heavily used MDHD fueling lanes.

7. What distance should separate charging stations to support zero-emission trucks along the I-5 corridor? Provide description of typical route or use-case considered when making this recommendation. Describe the vehicle class and vocation if it differs from the information provided in question 1.

For long-haul trucks traveling Interstate 5, we believe having charging stations every 50-100 miles will be necessary to support the emerging technology. This is based on our observations of the volume of trucks and potential future availability of charging, combined with the need for drivers to rest and fuel their vehicles. We are conducting discovery for the development of a reservation tool for drivers so that they can be assured of a charging location, which will help mitigate range anxiety. For instance, in our case, there had been significant analysis initially on the siting of our operation at Exit 99, exactly because of its strategic value relative to being positioned smack dab along a major freight corridor between Seattle and San Francisco. This location is also regionally relevant as a key location for freight running between Medford/Grants Pass and Eugene.

What we see, based on our analysis and cultural values, anticipating longer charge times for MDHD class vehicles and their critical role in our society, we will need to anticipate designated parking for freight (for rest and charge) in new ways that will provide priority corridors, in rural locations and outside major urban centers, with options for drivers. Whether fleets or independent operators, adoption of these systems rely on the drivers/truckers who have critical timelines they must deliver on – a series of designated lots in the areas at the right intervals (e.g. 50 miles) to align with load routing and required rest, must be of utmost priority in how these systems are deployed.

8. What amenities are you seeking at a charging facility? Is there a desire for additional parking at a facility beyond charging stalls? Is there a desire for reservation options?

We are planning our charging facilities to include a full range of amenities, including bathroom facilities, food and beverage options, lounge/rest areas, shower/hygiene facilities, considerations for the emerging trend of female truckers, and full service c-store operations. Our priority for assurance of trucks/drivers to (1) have a spot for rest is aligned with amenities they tell us they want and need in addition to the (2) future need for charge has propelled us to ensure these values are fully addressed. Our feasibility

and engineering analysis of transitioning our 8-acre lot with MDHD charging values is being conducted in parallel with a robust discovery and requirements gathering assessment with trucker/drivers at the center of these potentials – guaranteeing reserving a spot means a spot is job one. To deliver on this promise, for reservation for (1) required rest is the only way these critically important essential workers who deliver freight/goods will (2) believe reserving a spot for their rig to charge, will equal a spot for rest and charge.

9. If possible, provide any general cost estimates for MDHD charging stations you have designed, built, or have experience with, including charger power levels and number of chargers installed. Please provide a range of public cost share as a percentage of total project cost that would be necessary to support more public charging stations to serve zero-emission trucks along freight corridors.

Initial estimates to (1) construct a 50-truck charging facility are in the range of \$ 10 million dollars. This cost does not include necessary upgrades to the power delivery system to be able to deliver the required load for electrification, noting our Nation also has its own utility (UIUC) anticipating energizing these facilities (at Exit 99) will be approximately equal to the cost of construction. (2) At rough estimate, to power this publicly accessible lot, engineering and our utility leadership forecast this is likely to run in parallel at \$ 8 to \$ 10 million in system upgrades, for service-ready industrial-grade infrastructure. We believe that public cost share percentages for early installations need to be 75%-100% of the total project cost to install MDHD charging, and that number will decrease as the technology and industry matures. In order to foster adoption of the technology, station operators require assistance to install infrastructure that does not currently have a record of economic viability. Thus our system design's (3) integration of discovery (currently underway with State of Oregon grant dollars) of a potentially scalable reservation system, build or buy, will also incur a rough estimate expenditure of \$5 - \$8 million. This element of the system scoped for proper design, proto-type, beta to sector-ready deployment that works (reserving a spot guarantees that spot) which is designed specifically for freight/class 8 trucks and is tied to each respective truck and travel's designated lot inventory and its lot parking slips as well as its future tie-in to charging capacity.

10. Use the maps under the "Corridor Segments" section below to identify locations within the National Zero-Emission Freight Corridor Strategy hubs along I-5 (identified in the map segments below) you anticipate needing EV charging in the next three years (2024-2027)

You may identify sites where you plan to or would be interested in building charging stations or where you would like to see charging as a consumer. Please detail preferred

locations across California, Oregon, and Washington. For each location, please provide desired site characteristics including number of chargers, power levels, type of charging desired (overnight or en route), and vehicle class and vocation if the information differs across locations or differs from the information provided in the questions above.

Our site at Exit 99 in Oregon sits just outside the identified Corridor Strategy Hubs, but fills a vital niche for Interstate 5 travel. (Please see additional detail in question # 11). The site is at the northern end of a series of mountain passes that may be especially taxing for battery electric MDHD vehicles and provides a last- or first-chance opportunity for drivers to make sure their vehicles are sufficiently charged (or topped off) to negotiate the challenging terrain. This site fills a hole in the hub map, and should be considered for its value in connecting the northern and southern hub areas. Also, to consider the notes above in Question # 4: *"this location is tied in as an emergency staging area in the occurrence of climate events (e.g. 2024's January ice storm) as it is surrounded by dense forest and [Douglas County hosts a dispersed rural population](#) – with many large private acreage properties and rural roadways. Exit 99 is also the first (or last) stop along Interstate 5 at the foot of four 2,000-foot elevation gains, in event of wildfire or other unforeseen issues this surrounding rugged, rural terrain will unexpectedly produce. Tracking federal objectives, related to resilience or [emergency location values](#) are integrated into our system design's strategic considerations."*

We have an additional site near the south end of Oregon Corridor Segment #2 that we are interested in building a MDHD zero-emissions fueling station, that is squarely on the OR map for designated/priority areas. The reservation system we are evaluating, would potentially be developed to scale and importantly, be directly connected to travel centers with designated lot inventory for charge and required rest. These elements could be deployed across CA, WA, and OR priority areas, in particular targeting independent travel centers and across Tribal Nations with fueling/charging operations tied in with designated parking/required rest values.

11. If you represent a utility, please use the maps under the "Corridor Segments" section below to identify locations within the National Zero-Emission Freight Corridor Strategy hubs along I-5 (identified in the map segments below) where there may be capacity for 5 megawatts or more of power in the next five years. This information may be considered in the development for future Requests for Proposals.

Our site at Exit 99 in Oregon has the capacity to deliver 5 megawatts or more of power, anticipating potentially more than doubling this toward energizing our designated lot at Exit 99. There is also an additional adjacent property to the existing lot, that is also

owned by our Nation with ingress/egress to what has been used as a Rest Stop over the years. We have not yet tied that in to the electrification strategy, but it is an additional value/potential. Only after the electrical infrastructure is upgraded, and funding secured will the additional power be tied into these potential charging operations. It is unknown if the current power transmission lines are able to deliver this amount of power through our region's wholesale electrical provider, we are happy to provide more detail upon request.

In brief, to help power thinking – our research presents these priority criteria related to this location (and the 100-mile section of Interstate 5 our Nation holds acreage adjacent to Interstate 5 exits) – relative to energizing and additional values represented:

- Oregon [DEQ Vulnerable Populations Diesel Emissions](#) Mitigation Grant Criterion Map/Area
- [West Coast Clean Transit Corridor Initiative](#): Capacity-Emissions-Decarbonization–EV-Freight
- [OR State Designated Commercial Parking Study](#): Safety + Parking. Emissions/Idling
- [US-EV Designated Priority Commercial Corridor](#): Emissions, Electrification, Justice40, Rural
- [Oregon National Electric Vehicle Infrastructure Plan](#): rural, disadvantaged (forgot OR Tribes)
- [DOE State of Oregon | Electrification Report](#): planning considerations (congestion map PG 6)