ENHANCING EV CHARGER RELIABILITY IN OREGON

ELECTRIC VEHICLE CHARGER RELIABILITY AND ACCESSIBILITY ACCELERATOR PROGRAM (EVC-RAA)

Funding Opportunity Number: 693JJ324NF00001

Oregon Department of Transportation

Unique Entity Identifier: XKMMGCKGMQC8

Project Description	Funding will enable ODOT to replace EV chargers statewide that are broken and have a history of disrepair, as well as install additional chargers at the same locations to increase redundancy and EV charging accessibility in Oregon.
Station Location(s)	Statewide
Number of Repair or Replacement	Up to 107 sites will undergo replacement of existing equipment (148 L2 ports, 35 DCFC ports); 90 (84%) of these sites will also include installation of additional ports (208 L2 ports, 30 DCFC ports).
Number of broken/non-operational ports	Approximately 183 ports (148 L2 ports, 35 DCFC ports)
Is upgrade required to comply with 23 CFR 680?	Yes, upgrades will be required across all sites, including the replacement of non-working equipment and, in some cases, replacing working equipment to meet 23 CFR 680 requirements. Some sites will also require the installation of additional ports to meet 23 CFR 680 requirements.
Station ID from AFSL Alternative Fuel Station Locator	See **Appendix A: Oregon EVC-RAA Sites** for detailed information about Oregon's EV charging sites eligible under this program.
Estimated Date of Operation	March 2025
Total Project Cost	Up to $12.5 million
Amount of Funding Requested Under this NOFO	$10,000,000
Total Federal Funding	$10,000,000
Are matching funds restricted to a specific project component? If so, which one?	No
Is the proposed project included in an EV infrastructure plan?	Some sites may qualify as NEVI corridor stations due to site characteristics (see **Appendix A: Oregon EVC-RAA Sites**).
If known, identify the contractors or subcontractors used on the project, if awarded.	Final partners to be determined. Potential partners include but are not limited to: Blink, ChargePoint, Electrify America, EV Connect, EVgo, OpConnect, Shell Recharge, Volta.

1 PROJECT DESCRIPTION

1.1 Introduction

The Oregon Department of Transportation (ODOT) is requesting **$10,000,000** from the EV Charger Reliability and Accessibility Accelerator (EVC-RAA) grant program to enhance the reliability of existing EV charging stations in Oregon and build on existing agency efforts to expand accessibility of EV charging. In addition to EVC-RAA funding, this proposal leverages an additional $2,500,000 in non-federal funds, for a total project size of $12,500,000.

Oregon is a leader in transportation electrification, working for over a decade to establish the policies, programs, and partnerships necessary for a robust and equitable transition to EVs. These efforts have achieved significant results: Oregon has one of the highest EV adoption rates in the country, ranking fourth in the nation for plug-in vehicles per capita.[1] In the past five years, EV registrations in Oregon have increased nearly fourfold, with more than 74,000 plug-in vehicles registered in the state as of July 2023. The strong EV groundwork laid over the last decade make Oregon well poised for continued rapid EV growth.

Similarly, Oregon has made significant progress increasing the availability of public EV charging infrastructure, an essential precursor to widespread EV adoption. Charging infrastructure growth in Oregon is outpacing the growth nationally. Since the beginning of 2021, the number of EV charging ports in Oregon has more than doubled.[2] As of November 2023, Oregon has 1,117 public charging stations with 2,782 ports – 2,031 Level 2 and 751 direct current fast charging (DCFC) ports, according to the Alternative Fuel Data Center. This significant growth is expected to accelerate in the coming years, due to a surge in public and private investments, including through the federal National Electric Vehicle Infrastructure (NEVI) program and ODOT's Community Charging Rebates (CCR) program.

Still, the availability and reliability of EV charging infrastructure remains a significant barrier to widespread EV adoption. In their 2023 Electric Vehicle Consideration Study, J.D. Power found that 49% of car buyers indicated they would not purchase an EV due to lack of available charging stations.[3] Among those who own an EV already, frustration with the EV charging experience is common. A recent survey of EV drivers released by Plug In America found that 50% of respondents indicated they are either dissatisfied or very dissatisfied with public charger availability and reliability.[4]

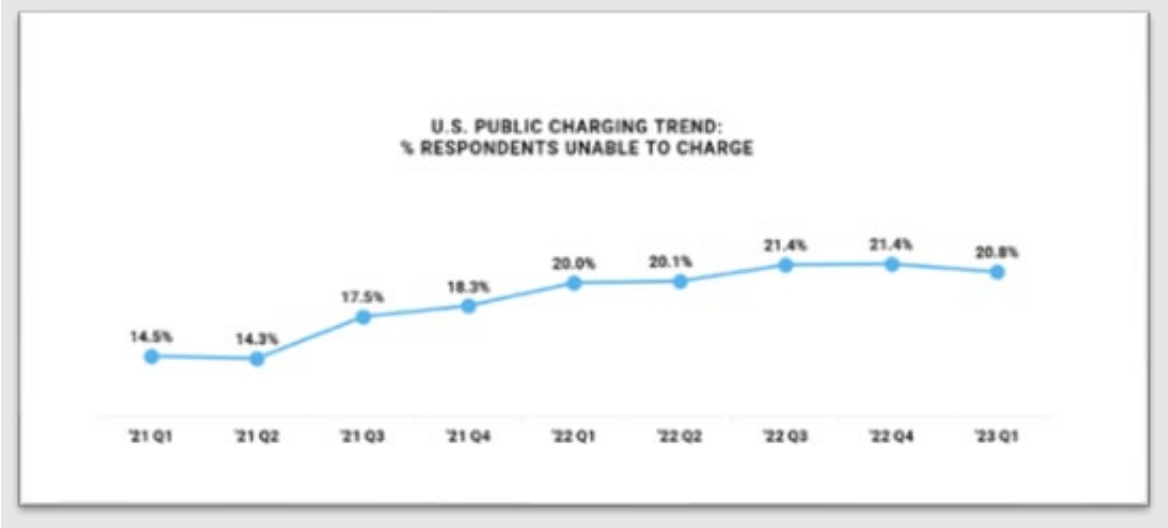
Recently, poor reliability and performance of existing chargers has received significant attention in the media, propelling into the national spotlight a longstanding concern of EV drivers. The lack of charging station utilization data makes it impossible to understand the full breadth of the problem in Oregon, but there is significant anecdotal evidence that Oregon EV drivers find the existing charging network to be unreliable. One ODOT survey of 227 EV drivers in Oregon found that more than half of respondents indicated they rarely or never found EV chargers in good working order.[5] In addition, charging station reliability has come up as a topic

[1] Kane, M. (2023) *Check Out the Number of Plug-in Cars Per Capita in Your State.* InsideEVs. https://insideevs.com/news/656711/us-plugin-car-registrations-per-capita/
[2] Oregon Department of Energy (2023). *Biennial Zero Emission Vehicle Report.* https://www.oregon.gov/energy/Data-and-Reports/Documents/2023-Biennial-Zero-Emission-Vehicle-Report.pdf
[3] J.D. Power. (2023) 2023 U.S. Electric Vehicle Consideration (EVC) Study. https://www.jdpower.com/business/press-releases/2023-us-electric-vehicle-consideration-evc-study
[4] Plug In America (2023) *How do consumers feel about their EV charging experience?* *https://pluginamerica.org/wp-content/uploads/2023/10/2023.10-Charging-Survey-Analysis.pdf*
[5] Oregon Department of Energy (2023). *Biennial Zero Emission Vehicle Report.* https://www.oregon.gov/energy/Data-and-Reports/Documents/2023-Biennial-Zero-Emission-Vehicle-Report.pdf

of concern in over a dozen listening sessions ODOT has hosted for the public or EV partners in recent years. Oregon's early support for EVs means some chargers in the state have been in place for many years, increasing the likelihood that they need repair or upgrades.

Despite improving technology, the development of reliability standards and an increasing number of experienced electric vehicle service providers (EVSPs), the reliability perception problem seems to be worsening. In the same Plug In America survey referenced above, broken or non-functional chargers was the most serious problem stated, increasing in severity among respondents from 2022 to 2023, with 31% regarding it as a major concern or deal-breaker. Similarly, despite a slight decrease in the first quarter of 2023, quarterly surveys conducted by J.D. Power since 2021 show that an increasing percentage of EV drivers who use public charging have experienced charging failures or equipment malfunctions that left them unable to charge their vehicles (Figure 1).[6]

Figure 1: EV Charging Infrastructure Reliability Over Time



If not addressed, the public perception that EV chargers are unreliable threatens to slow the significant EV growth happening in Oregon and nationwide. To continue building consumer confidence in EVs and bolster the public perception of EV charging, ensuring the reliability and performance of existing chargers must be as high a priority as expanding the network of chargers. Reliability is especially critical in low-income and disadvantaged communities, as there are already fewer charging options in these communities.

The EVC-RAA program presents a strategic opportunity for ODOT to both improve the existing network of publicly accessible EV chargers and expand it by increasing the number of ports at existing sites. This funding opportunity will allow ODOT to enhance the reliability of public charging in Oregon in the following ways: 1) through the repair or replacement of existing charging ports that are broken; 2) through the installation of new charging ports utilizing the best available technology to meet 23 CFR 680 requirements; 3) by providing the means for enforcing a 97% uptime requirement for new and existing stations; and 4) through its data sharing requirements, as charging station data is required to adequately assess reliability.

[6] J.D. Power. (2023). EV Leasing Volumes Poised to Surge as Tax Rule Makes It Cheaper to Lease than Buy. J.D. Power. https://www.jdpower.com/business/resources/ev-leasing-volumes-poised-surge-tax-rule-makes-it-cheaperlease-buy

1.2 The Landscape of Inoperable EV Chargers in Oregon

According to the list published by the Federal Highway Administration (FHWA) on October 11, 2023, there are 135 sites in Oregon that are potentially eligible for funding under this program, representing 229 ports, including 186 Level 2 ports and 43 DCFC ports. These sites are located in 44 municipalities throughout Oregon (Figure 1), with the City of Portland hosting the most inoperable charging stations (Table 1). Eight different EVSPs offer networking services to Oregon's 135 sites (Table 2).

Figure 2: Inoperable EV Charging Stations in Oregon

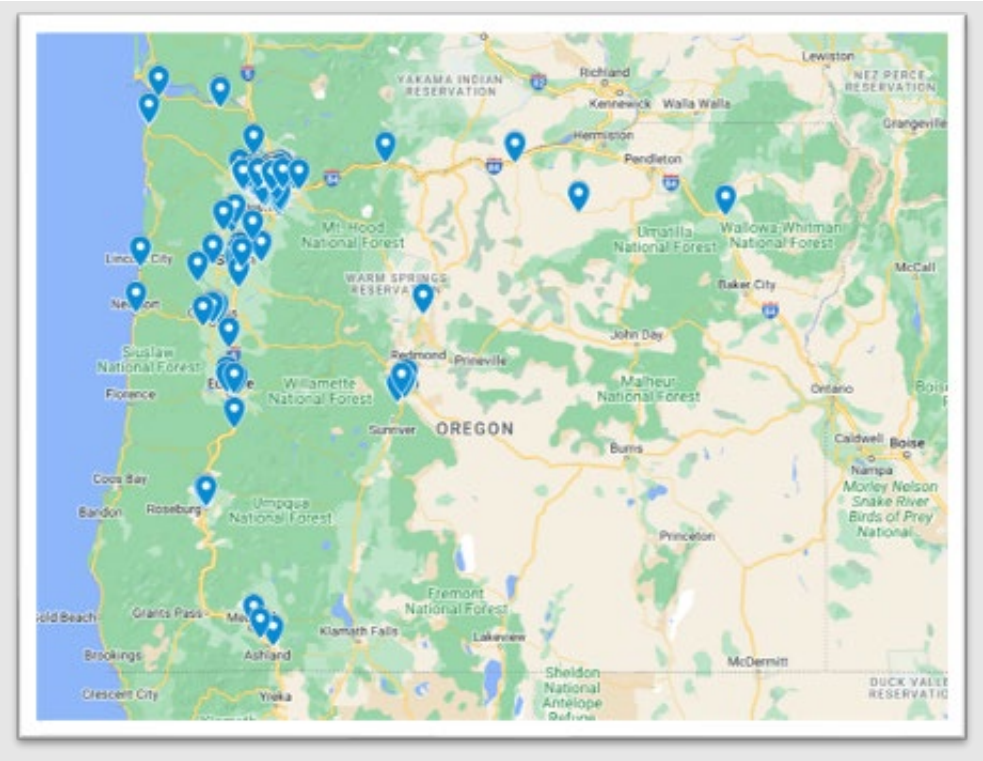


Table 1: Top Ten Oregon Municipalities with Inoperable Chargers

Municipality	# Stations with Inoperable Chargers
Portland	44
Hillsboro	9
Lake Oswego	9
Salem	7
Eugene	6
Beaverton	5
Bend	5
Corvallis	5
Tigard	4
Roseburg	3

Table 2: EVSPs with Inoperable Chargers in Oregon

Network Provider	# Stations with Inoperable Chargers
Blink	68
ChargePoint	28
OpConnect	10
Electrify America	9
Volta	7
Shell Recharge	6
EVgo	5
EV Connect	1
Non-networked	2

ODOT has been working to identify information about the charging station sites in Oregon since the Notice of Funding Opportunity was published on September 13, 2023. While most sites in Oregon are networked, the majority are not owned and operated by the network provider. Rather, Oregon stations are owned and

operated by more than 100 different entities. Given this, it was not possible for ODOT to obtain detailed information about each site or confirm a desire to participate. Further, between the time the first list was published on September 13 and the final list on October 11, the number of sites in Oregon more than doubled (from 65 to 135), complicating the fact-finding efforts that were already underway.

ODOT focused its outreach efforts on the EVSPs providing network services to the stations on the list, rather than individual site hosts. Over the last two months, ODOT has met or been in contact with seven of the eight EVSPs listed in Table 2 to discern the best approach to this funding opportunity and to request detailed information about their sites. Specifically, for each station, ODOT asked for verification of the owner/operator, the number of ports, the number of broken ports and details about what is broken, and the cost to repair or replace the broken ports as well as to install any additional chargers necessary for compliance with 23 CFR 680. Some of the information received is summarized in Table 3 below and provided in detail in **Appendix A: Oregon EVC-RAA Sites**.

Table 3: Additional Site Characteristics

	Number of Sites	Percentage of Sites
L2 ports only	108	80%
DCFC ports only	21	16%
Both L2 and DCFC ports	6	4%
Located in Disadvantaged Community (DAC)	40	30%
Located within 1 mile of an Alternative Fuel Corridor (DCFC only)	9	43%
Include 4 or more ports (approx..)	20	15%
Would require installation of additional ports to comply with CFR 23 680	114	84%
Owned and Operated by an EVSP	33 confirmed Yes 85 confirmed No 17 Unknown	24% 63% 13%
Confirmed as working by EVSP	16	12%
Ineligible for EVC-RAA	28	21%

Table 4: Description of Outreach to EVSPs

EVSP	Outreach	Did they provide requested information?
Blink	10/2/23 (meeting); subsequent e-mails	Some
ChargePoint	9/27/23 (meeting); subsequent e-mails	Yes
Electrify America	11/5/23 (meeting); subsequent e-mails	Yes
EV Connect	none	N/A
EVgo	10/6/23 (meeting); subsequent e-mails	Some
OpConnect	10/2/23 (meeting); subsequent e-mails	Yes
Shell Recharge	11/2/23 (e-mail)	Some
Volta	11/2/23 (e-mail)	Some

As a result of these conversations and our own site research, ODOT has determined that at least 28 sites on the original 135-station list are ineligible for funding, because they have either been confirmed as working by the EVSP, are duplicate entries, are non-networked or have user restrictions in place and thus do not meet the program definition of "publicly accessible." See **Appendix B: Ineligible Sites** for a full list of sites that have

been deemed ineligible for the purposes of finalizing a program budget. Of the remaining 107 sites in Oregon, ODOT expects that some will not be interested in participating in the program due to 1) a lack of desire to continue the relationship with the existing network provider; 2) a lack of adequate parking or electrical capacity onsite to meet the requirements in 23 CFR 680; or 3) a lack of funding available to provide the match required. This assumption is reflected in ODOT's final program budget, described in detail in Funding Description.

1.3 ODOT's Funding Disbursement Approach

ODOT proposed and was granted a FHWA Special Experimental Project No. 14 (SEP-14) exclusion in August 2023 and intends to utilize its own competitive policies and procedures when procuring EV charging infrastructure projects under this program.

ODOT has established a flexible framework for how the funding will be disbursed if awarded, to reflect significant unknowns that remain despite ODOT's research and outreach efforts. To avoid the complexity and inefficiency of contracting with more than 100 different entities, ODOT has determined that the best approach is to contract directly with EVSPs, whether they own and operate the stations or not. ODOT has evaluated several delivery pathways to ensure program requirements can be achieved in the stated 12-month timeline. These pathways include:

- Utilize ODOT's Oregon Innovative Partnerships Program (OIPP) to enter **direct negotiations** with one or more EVSPs that have existing network contracts or Site Host Agreements with the entity that hosts the EV charger. ODOT will encourage vendor(s) to be pre-qualified through ODOT's *Transportation Electrification and Zero Emission Vehicle Charging and Fueling Infrastructure Projects* Partnership Pool, to ensure vendors are qualified to design, build, operate and maintain EV charging stations in Oregon. This option allows a faster process while still retaining cost and quality requirements. ***(Top choice)***

- Establish a **new grant program** to distribute funding as subgrants to EVSPs to conduct the replacement and installation work. To minimize the administrative burden and ensure projects can be completed within the 12-month timeframe, eligible applicants will be restricted to EVSPs. Individual site hosts will not be eligible. EVSPs that have existing network contracts or Site Host Agreements with the entity that hosts the EV charger will be given preference provided they sufficiently demonstrate their ability to meet program requirements, including the 20% match. In this option, ODOT may contract with a third party to administer the grant program.

- Conduct a **competitive solicitation** utilizing ODOT's established *Transportation Electrification and Zero Emission Vehicle Charging and Fueling Infrastructure Projects* Partnership Pool, requesting proposals from pre-qualified vendor(s) to conduct the replacement and installation work required. In this case, a competitive procurement is required and ODOT is selecting from a pool of vendors that have already been deemed qualified to design, build, operate and maintain EV charging stations in Oregon, which will cut down the timeline but still requires drafting and approval of a new Request for Proposal (RFP).

The key details of ODOT's approach will be consistent across delivery pathways. In all scenarios, selected partner(s) must guarantee the 20% non-federal match, whether contributed by the EVSP itself or secured through negotiations with the charging station site host. In addition, selected partner(s) will be responsible for working with site hosts to ensure consent for participation in the program and establish new contracts or site host agreements where necessary. Lastly, ODOT will be responsible for ensuring that these projects meet all federal requirements, including Chapter 1 of Title 23: Federal Aid Highways and 23 CFR 680. ODOT is currently developing its RFP and Contract for the National Electric Vehicle Infrastructure (NEVI) program that will include

a detailed appendix outlining technical specifications and requirements for operation for charging stations. This appendix will include all federal requirements and state requirements, and the partner will be asked to submit their plan for complying with all contract provisions for either approval or acceptance by ODOT (see **Appendix E: NEVI Exhibit – Title 23 Requirements**). ODOT will follow a similar approach for the EVC-RAA program.

Across all pathways, ODOT will require and/or prioritize projects that adequately demonstrate the following characteristics:

- **Project readiness**: selected partner(s) must demonstrate the project can be completed and operational within the required 12-month timeline.
- **A focus on equity**: if funding is limited, proposals with a high percentage of sites in disadvantaged communities (DACs), or those that demonstrate they will sequence projects to maximize benefits to DACs, will be prioritized.
- **Proof of inoperability**: In addition to requiring that charging stations are on the final eligibility list published by FHWA on October 11, 2023, ODOT will require proof that charging stations are currently inoperable and/or have a history of disrepair.
- **Match contribution**: ODOT will require a 20% match from selected partner(s) and, if funding is limited, will prioritize proposals that guarantee a higher percentage match.
- **Ongoing stewardship**: Per 23 CFR 680, ODOT will require a minimum of five years of operation and maintenance at the required uptime percentage and, if funding is limited, will prioritize proposals that indicate intent for stewardship beyond that timeframe.
- **AFC-designated stations**: if funding is very limited, ODOT may prioritize projects located within 1 mile of an electric AFC that demonstrate interest in upgrading the site to meet NEVI corridor station requirements, to better enable ODOT to leverage federal funds and expand NEVI station deployment.

ODOT will select the pathway deemed the most efficient method for distributing funds to ensure projects have the best chance of being operational within 12 months. The differences among these delivery pathways lie in the way the partners or projects are selected, whether through direct negotiation, a grant application evaluation, or through a competitive process. Namely, the number and order of steps that must occur before a final contract is signed between ODOT and its selected private sector partner(s) differs among delivery pathways. Currently, ODOT believes the OIPP direct negotiation pathway will enable the most efficient project completion timeline.

Under ODOT's OIPP direct negotiation pathway, ODOT will invite select vendors to enter negotiations for EVC-RAA work. Prior to entering negotiations, ODOT will communicate its intended funding disbursement approach and encourage vendors to continue collecting detailed site information for each site they intend to upgrade, if this has not been done already and ODOT will require this detailed site information from each vendor (see Table 5).

Table 5: Detailed Site Information Required from Vendors

Information Required from Select Vendors as a Pre-requisite for Entering Negotiations
Owner/Operator of charging station
Real property owner
Consent to participate from real property owner
Key elements of Site Host Agreement / property owner contract, e.g., proof of duration and parties involved
Total number of ports by power level
Total number of broken ports
Description of repair, replacement or upgrades being made
Itemized project costs, including costs for replacement vs. upgrades
Total funding requested
Amount and source of required 20% or more match
Estimated project schedule (demonstrating fulfillment of required 12-month timeline)
Plan for ongoing ownership and stewardship
Plan for meeting Title 23 Requirements (see **Appendix E: NEVI Exhibit – Title 23 Requirements**)

ODOT anticipates executing contracts with multiple vendors for the work outlined in this proposal. Vendors with existing relationships with property owners will be given preference in award, provided they meet all the requirements of the program. However, ODOT may consider allowing EVSPs to demonstrate their approach for working on any charging station deemed eligible, whether they are the current network provider or not.

1.4 Collaboration with Municipalities

Given the number of sites located in the City of Portland, ODOT has worked closely with the Portland Bureau of Transportation (PBOT) in the development of this proposal. If awarded, ODOT and PBOT are committed to working together to implement the program. In initial discussions, the two agencies explored the option of a sub-award to PBOT to complete the charging sites in its jurisdiction. As an entity certified by ODOT to oversee FHWA funds and meet Title 23 requirements, this would have been possible. However, the time required to finalize an Intergovernmental Agreement (IGA) would make meeting the 12-month timeline very difficult. Rather, PBOT will be a close partner, working with ODOT on the final design of this program and on selecting private sector partner(s) (see **Appendix F: PBOT Letter of Support).**

1.5 Additional Program Details

1.5.1 Description of Repair or Replacement Being Made

See **Appendix A: Oregon EVC-RAA Sites**.

1.5.2 Description of How the Project Will Meet Minimum Standards and Requirements (23 CFR 680)

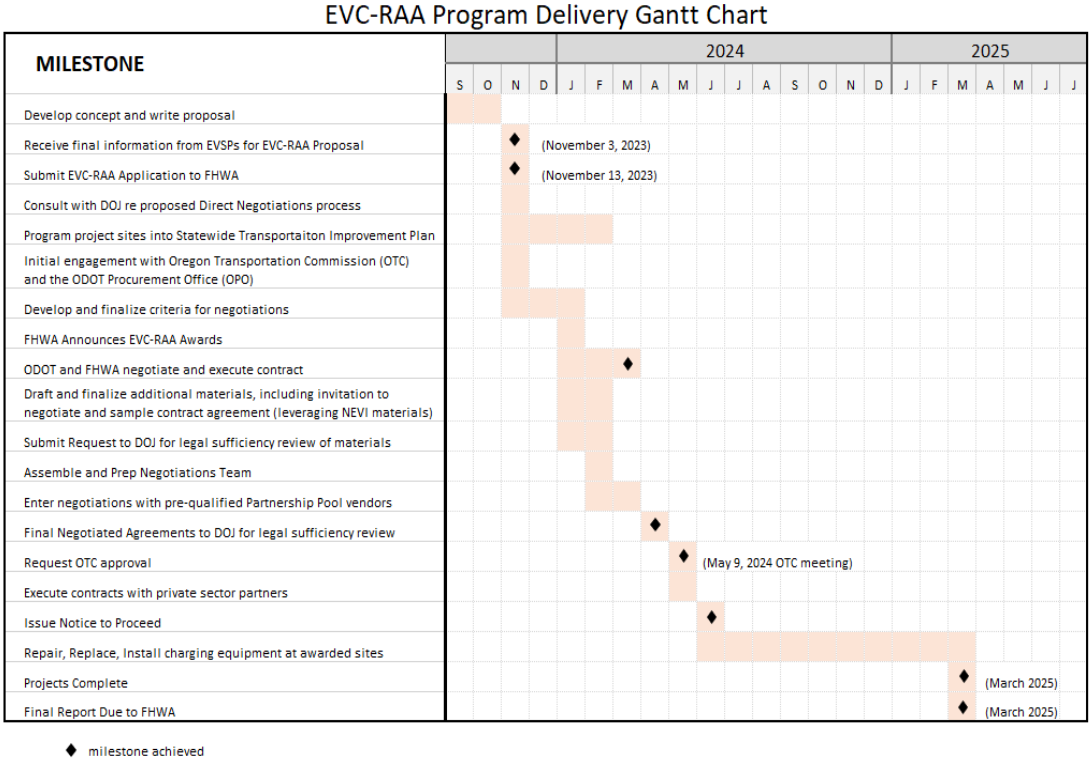
ODOT remains responsible for ensuring that all newly constructed or upgraded charging stations funded through EVC-RAA program comply with Title 23 U.S.C., 23 CFR 680 (National Electric Vehicle Infrastructure Standards and Requirements), and all applicable requirements under 2 CFR 200. ODOT will follow a process like that followed in its NEVI program. ODOT will clearly establish Title 23 requirements prior to entering direct negotiations with private sector partner(s). The resulting contractual language will be leveraged from the drafting work underway for the NEVI program and subject to FHWA Division Office review and approval. .

To ensure that contracted EVSPs comply with all requirements under 23 CFR 680 in its NEVI program, ODOT created an Exhibit to its NEVI RFP detailing the technical specifications and requirements for operation for NEVI- funded DCFC infrastructure. This checklist includes all federal requirements as well as those specific to Oregon (see **Appendix E: NEVI Exhibit – Title 23 Requirements**). ODOT will develop a similar Exhibit for the EVC-RAA funding, and partners will be asked to address all elements of the checklist as part of the direct negotiation process. In addition, ODOT intends to enter direct negotiations with several vendors that have been pre-qualified in its *Transportation Electrification and Zero Emission Vehicle Charging and Fueling Infrastructure Projects* Partnership Pool. These vendors have already been evaluated for their ability to meet the required technical specifications and requirements of operation. ODOT will ensure there is a plan for monitoring compliance for the five-year period of performance included in any final contract.

1.5.3 Description of How ODOT Will Ensure All Approvals and Requirements Are Achieved in a Timely Way

There are several strategies ODOT is undertaking to ensure approval and requirements are achieved in the 12-month timeframe required. First, ODOT will choose the most efficient pathway for funding disbursement available under state procurement rules (see Disbursement Approach, above). Second, ODOT intends to get started on various aspects of administrative planning prior to an award announcement, including initiating the process for programming into the Statewide Transportation Improvement Plan (STIP), and initiating engagement with the Office of Innovative Partnership Program (OIPP) Department of Justice (DOJ), the Oregon Transportation Commission (OTC) and the ODOT Procurement Office (OPO). Third, ODOT will leverage the extensive work that has been done for the NEVI program, including approved contract language and many pre-qualified vendors that have already demonstrated their ability to meet the requirements of 23 CFR 680 and all other Title 23 requirements. All these efforts combined will present the best opportunity for completing project sites within the 12-month timeframe. The Gantt chart below provides a detailed breakdown of the program timeline (Figure 3; for a larger version, see **Appendix D: EVC-RAA Gantt Chart**).

Figure 3: Schedule of Program Timeline



1.5.4 Identification of Ownership and Operator of the Existing Facility – including Ports and Property

As described in detail above, ODOT was not able to identify the owner/operator of the charging equipment and real property for each of its 135 sites. However, ODOT was able to identify many instances where the charger owner/operator is the network provider. This information is noted in **Appendix A: Oregon EVC-RAA Sites**. ODOT intends to require this information, as well as many more details, for each site from its private sector partners as part of the direct negotiation process (Table 5).

1.5.5 Amount of Funding Requested

ODOT is requesting $10 million under this funding opportunity. See Funding Description for details on how ODOT derived a program budget.

1.5.6 Source of Matching Funds

ODOT will require a 20% match from our private sector partner(s). As a prerequisite for entering negotiations, partners(s) must guarantee the 20% non-federal match, whether provided by the EVSP itself or secured through negotiations with the charging station site host. See Funding Description for details on how ODOT derived a program budget.

1.5.7 Assessment of Project Readiness Risks and Mitigation Strategies

While ODOT will leverage its experience developing and implementing successful EV charging programs, including the West Coast Electric Highway and the NEVI program, it has identified some material risks that could affect successful completion of the project.

a) **Project Completion Timeline** – ODOT believes the OIPP direct negotiation process is the most efficient pathway for distributing funds and one that provides the greatest likelihood of achieving the required 12-month timeline. It is not without risks, however. A delay in one administrative step could delay the negotiations and ultimately the timing of the Notice to Proceed to our partners. ODOT will mitigate this risk by immediately initiating as many steps as possible simultaneously. Once agreements are executed, there are several events that can be anticipated that cause significant delays in implementation—supply chain constraints; delays and increased costs associated with supplying sufficient power to the sites, for example—in addition to those we do not anticipate. Any of these could derail the entire project schedule. ODOT will mitigate these risks by engaging the approved partners to prepare them for direct negotiations (or an RFP if that pathway is selected) and shorten the timeline for the pre-agreement phase. By keeping the partners appraised of ODOT's approach to implementation, advising of likely future data requests and maintaining open transparent communications, we will shorten the time from receipt of the FHWA award to a signed partners agreement and notice to proceed, granting the partner the maximum time possible to achieve the program's 12- month deadline.

b) **Little interest from EVSPs and/or site hosts** –ODOT anticipates that some site hosts and/or EVSPs will not be interested in participating in the program for a variety of reasons, including the lack of parking or electrical capacity to meet port count requirements, an inability to provide or secure the 20% match requirement[7], and lack of interest in continuing a relationship with the existing network provider. Little interest in the program will make it harder to justify the resources required for administration and will make distribution of the total requested funding difficult. ODOT is mitigating this risk by communicating with select vendors early in the process, making the program requirements clear and

[7] In our conversations with EVSPs, it was mentioned by more than one vendor that they are willing to provide match ***only*** for sites they own and operate. Thus, for these vendors to participate in the program, they must secure match from the site host. This may prove difficult to do, especially considering the cost of the upgrades likely required at many sites.

leaving the greatest amount of time possible for negotiating with site hosts and securing new agreements where necessary. ODOT may also allow any EVSP to develop an approach for working on any site, not just those where existing site host relationships lie.

c) **Much higher or lower than expected project costs** – To complete this proposal in the time allotted, ODOT made a series of educated assumptions to determine the final program budget described below. If costs are much higher or lower than anticipated, it presents a risk to program viability. ODOT will mitigate this risk by obtaining as much detailed cost information from interested vendors as soon as possible. In addition, ODOT has developed the evaluation criteria described above that will be used to prioritize projects if there is not sufficient funding to award each site.

2 Staffing Description

ODOT anticipates utilizing a portion of awarded funding for program administration. Under the OIPP direct negotiation pathway, ODOT plans to reallocate time from existing staff rather than hire new staff to complete the project in the timeframe allotted. Should ODOT pursue the grant program pathway, it will similarly leverage existing staff but may also contract with a third-party administrator. Under all pathways, ODOT estimates that 5-10% of the program budget will be required for program administration. See Funding Description for more details on the program budget.

3 Funding Description

ODOT is requesting $10 million from EVC-RAA and will require a 20% match from private sector partners, making this a $12.5 million program in total.

While ODOT was not able to ascertain detailed cost information for each of its 135 sites, it derived a program budget through a combination of three sources of cost information: 1) high-level estimates for **select sites** provided by EVSPs; 2) the "Estimated Average Replacement Cost" outlined in Table 1 in the NOFO for **replacements** at sites where no EVSP information was provided; and 3) the 50th percentile cost estimates from ODOT's recently published Guide for Oregon EV Charging Deployment for **new installations** at sites where no EVSP information was provided.[8] Budget estimates include the cost to replace existing broken or non-operational chargers and/or components; the cost to upgrade functioning chargers and/or components to bring sites into 23 CFR 680 compliance; the cost for the installation of new chargers to bring sites into 23 CFR 680 compliance; and 10% program administration costs.[9] For fast-charging sites located within 1-mile of an existing electric Alternative Fuel Corridor, these estimates include bringing sites up to NEVI-corridor compliance (i.e. 4x150 kW DCFC). See a budget summary in Table 6 below as well as a breakdown per site in **Appendix C: Oregon EVC-RAA Program Budget**.

[8] Based on these sources, for sites without EVSP cost estimates, ODOT assumed: for Level 2, an average replacement cost of $5,000 per port and new installation cost of $16,150 per port; for 50 kW DCFC, an average replacement cost of $50,000 and installation cost of $118,000 per port; for 125 kW DCFC, an average replacement cost of $75,000 and installation cost of $144,000 per port; and for 150 kW DCFC, an average replacement cost of $125,000 and installation cost of $200,000 per port.

[9] ODOT is not estimating any repairs of broken equipment, only replacements. Virtually all EVSPs with whom ODOT spoke expressed that repairs of their equipment would not enable compliance with 23 CFR 680. Rather, all equipment would need to be replaced.

Table 6: Estimated EVC-RAA Program Budget - Oregon

Total Eligible Sites in Oregon	107 (of 135 listed)
Estimated Number of Level 2 Port Replacements	148
Estimated Number of Additional Level 2 Port Installations	208
Estimated Number of DCFC Port Replacements	35
Estimated Number of Additional DCFC Port Installations	30
Total Project Cost (Est.)	$14,759,820
10% Program Administration	$1,475,982
Total Program Budget	$16,235,802

Given the wide range of costs provided by EVSPs, even for sites with similar characteristics, ODOT performed a parallel analysis utilizing just the cost figures from the NOFO and its own published report. The results of this analysis are included in Table 7. As shown, these two analyses show similar program costs, ranging from approximately $13.3 million to $15.5 million.

Table 7: EVC-RAA Program Budget Comparison

	EVSP Estimates[10]	**ODOT Estimates**
Total Project Cost (Est.)	$14,759,820	$12,738,200
5% Program Administration	$737,991	$636,910
Total Program Budget	**$15,497,811**	**$13,375,110**

Under the direct negotiation pathway, ODOT assumes that reserving 5% for program administration should be sufficient. Should ODOT decide to pursue the grant program pathway, it anticipates needed up to 10% for program administration, to enlist the services of a third-party administrator.

As displayed in Table 7, under either program cost analysis, the $12.5 million program budget proposed ($10 million federal grant request plus a $2.5 million/20% match requirement from the private sector) is not sufficient to fund the necessary work at all eligible sites in Oregon. However, as described above, ODOT anticipates that some sites will not be interested or able to participate in the program, particularly those that are not owned and operated by the EVSP.[11] Given this expectation and the wide range in EVSP costs provided, ODOT made the following additional assumptions to arrive at a final program budget:

- ODOT assumed that roughly half the sites owned and operated by individual site hosts and virtually all those owned and operated by EVSPs would participate. These assumptions are supported by our conversations with the EVSPs.
- ODOT added a 25% contingency to reflect cost uncertainty, given the disparity in preliminary cost information provided by EVSPs.

ODOT believes this $12.5 million program budget is sufficient to fund the work required at roughly 65% of the total eligible sites in Oregon. If there is more interest in the program than anticipated or if ODOT is awarded less funding than requested, ODOT will prioritize projects based on the criteria detailed in **ODOT'S FUNDING DISBURSEMENT APPROACH**.

[10] In this scenario, ODOT utilized its own cost estimates for sites with no EVSP estimate.
[11] In ODOT's interactions with EVSPs, particularly those who do not own and operate the chargers in question, they indicated that they do not expect all site hosts to participate. One estimated that as few as 25% of their sites may participate; others had higher expectations.

Appendix A: Oregon EVC-RAA Sites

									Provided by EVSPs						
ID	EV Network	Station Name	City	On AFC?	EVSP Owned & Operated?	Disadvantaged Community per CJEST?	Power Level	PlugShare Score	Project Description	Estimated Time to Completion	L2 Replacements Requested	Additional L2 Ports	DCFC Replacements Requested	Additional DCFC Ports	Estimated Project Cost
95226	Blink	Randall Children's Hospital - Parking Garage 4	Portland	No	Yes	No	7.6 kW	6.2	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	2	2	0	0	$ 23,927
95690	Blink	First Alternative Cooperative North	Corvallis	No	Yes	No	6.8 kW	3.5	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$ 23,927
95750	Blink	Hotel Rose Portland	Portland	No	No	Yes	6.8 kW	5.3	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$ 23,927
95940	Blink	Providence - Office Park	Portland	No	Yes	No	8.4 kW	7.3	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$ 23,927
95942	Blink	Providence - Milwaukie Hospital	Milwaukie	No	No	No	6.8 kW	10	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$ 23,927
95943	Blink	Providence - Willamette Falls Medical Center	Oregon City	No	No	No	6.8 kW	8	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$ 23,927
95944	Blink	Providence Medical Group - Tanasbourne	Hillsboro	No	Yes	No	6.8 kW	4.4	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$ 23,927
95947	Blink	Providence - Portland Medical Center - Glisan Parking Garage West	Portland	No	Yes	No	6.8 kW	4.8	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	2	2	0	0	$ 23,927
96295	Blink	City of Falls City	Falls City	No	Yes	No	7.5 kW	9	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$ 23,927
96542	Blink	Danielson's Hilltop Mall	Oregon City	No	Yes	No	6.8 kW	9.3	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$ 23,927
104060	Blink	Providence - Portland Medical Center - Glisan Parking Garage - Valet Parking	Portland	No	Yes	No	6.8 kW	10	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	4	0	0	0	$ 23,927
120905	Blink	The Windward	Lake Oswego	No	No	No	4.9 kW	None	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$ 23,927
122667	Blink	McDonalds on Farmington Rd	Aloha	No	Yes	No	6.8 kW	6.4	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$ 23,927
147866	Blink	MRC	Lake Oswego	No	No	No	6.2 kW	None	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$ 23,927

147873	Blink	J Building	Lake Oswego	No	No	No	6.2 kW	8	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	2	2	0	0	$	23,927
147893	Blink	Winderlea Vineyard and Winery	Dundee	No	No	No	6.2 kW	9	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
147901	Blink	Joel Palmer House Restaurant	Dayton	No	No	No	6.2 kW	10	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	2	2	0	0	$	23,927
147920	Blink	Kaiser - Keizer Station Dental	Keizer	No	No	No	6.2 kW	8.8	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
147937	Blink	Andante Vineyard Main	Dallas	No	No	No	6.2 kW	None	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
147946	Blink	Willamette Valley Vineyards	Turner	No	No	No	6.2 kW	10	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	2	2	0	0	$	23,927
148055	Blink	Broadway South	Eugene	Yes	No	Yes	6.2 kW	10	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
148084	Blink	Walgreens - Roseburg, OR #12068	Roseburg	Yes	No	Yes	6.2 kW	6.9	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
149657	Blink	RV Building	Lake Oswego	No	No	No	6.2 kW	9	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	2	2	0	0	$	23,927
153217	Blink	Kaiser - Beaverton Medical Office	Beaverton	No	No	No	6.2 kW	7	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
164223	Blink	Vista De Rosas	Portland	Yes	No	Yes	6.6 kW	None	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	3	1	0	0	$	23,927
165325	Blink	The Resort at Seaside	Seaside	No	No	No	6.2 kW	4.7	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
168248	Blink	North Plains Veterans Park	North Plains	No	Yes	No	11.7 kW	9.3	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	2	2	0	0	$	23,927
168512	Blink	Ride Connection	Portland	No	No	No	6.6 kW	4.8	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
170127	Blink	Native American Youth and Family Center	Portland	No	No	Yes	7.6 kW	None	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	4	0	0	0	$	23,927
187749	Blink	Garden Garage	Portland	No	No	No	4.9 kW	10	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	4	0	0	0	$	23,927

190549	Blink	Halsey City Hall	Halsey	Yes	No	Yes	6.2 kW	10	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$ 23,927
193268	Blink	OSU - Parking Structure	Corvallis	No	Yes	No	6.7 kW	10	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$ 23,927
193270	Blink	OSU - Reser Stadium Parking Lot	Corvallis	No	Yes	No	7.8 kW	9.3	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$ 23,927
193982	Blink	Millrace Professional Building	Eugene	No	Yes	No	8.6 kW	8	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$ 23,927
195062	Blink	SMR AUO 1	Bend	No	No	No	6.2 kW	6.7	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$ 23,927
195164	Blink	City Hall	Eugene	No	No	No	6.2 kW	7.8	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	2	2	0	0	$ 23,927
195302	Blink	Collin	Lake Oswego	No	No	No	6.2 kW	9	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	4	0	0	0	$ 23,927
195420	Blink	INDIGO @ 12 west	Portland	No	No	No	6.4 kW	10	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	2	2	0	0	$ 23,927
195502	Blink	The Arbory Building B	Hillsboro	No	No	No	6.2 kW	None	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$ 23,927
195504	Blink	MRC 2	Lake Oswego	No	No	No	6.2 kW	None	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$ 23,927
195505	Blink	O\'Neill	Lake Oswego	No	No	No	6.2 kW	None	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	3	1	0	0	$ 23,927
195506	Blink	Pepin	Lake Oswego	No	No	No	6.2 kW	None	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	4	0	0	0	$ 23,927
195556	Blink	Market Center Building	Portland	No	No	No	6.2 kW	5.7	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	2	2	0	0	$ 23,927
195557	Blink	531006 : Oregon Health & Science University	Portland	No	No	No	6.2 kW	6	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$ 23,927
195560	Blink	Quality Inn	Tigard	Yes	No	Yes	4 kW	8.6	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	2	2	0	0	$ 23,927
201789	Blink	Capitol Chevrolet - Customer Parking	Salem	Yes	No	yes	120 kW	8.2	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	0	3	1	0	$ 220,000

205180	Blink	Walgreens - Eugene, OR #12491	Eugene	No	No	No	6.2 kW	1	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
213858	Blink	Tigard Senior Center	Tigard	No	Yes	No	6.6 kW	7.2	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	2	2	0	0	$	23,927
218193	Blink	Ashland Hills Hotel	Ashland	No	No	No	6.2 kW	8.9	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
220743	Blink	Oliver Station Apartments - East	Portland	Yes	No	Yes	6.2 kW	None	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
225266	Blink	Oliver Station Apartments - West	Portland	Yes	No	Yes	6.2 kW	None	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
225273	Blink	City Parking Lot - Library & Community Center	Cottage Grove	Yes	No	Yes	6.2 kW	10	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
226723	Blink	Providence - Medford Medical Center	Medford	Yes	Yes	Yes	8.4 kW	10	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
250804	Blink	47th Avenue Parking	Portland	No	Yes	No	6.6 kW	4.8	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
257391	Blink	Eastgate Business Center	Corvallis	No	Yes	No	7.8 kW	8	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
257455	Blink	The Hotel Zags Portland	Portland	No	Yes	No	7 kW	4.9	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
262709	Blink	Portland State University	Portland	No	Yes	No	6.6 kW	None	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
309903	Blink	Quarry Apartments	Portland	No	No	No	Unknown	None	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
309930	Blink	Buri BLDG	Portland	Yes	No	Yes	6.2 kW	None	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
310041	Blink	Springfield Utility Board	Springfield	Yes	No	Yes	6.2 kW	None	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
310154	Blink	Ascend Apartments	Portland	No	No	No	6.2 kW	None	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
310443	Blink	Roseburg Honda	Roseburg	Yes	No	Yes	6.6 kW	None	Project generally involves verifying the hardware, service upgrade and other costs necessary to remove the broken or non-operational EV charger(s) and install new chargers that comply with 23 CFR 680.	10+ months	1	3	0	0	$	23,927
53039	ChargePoint	TOFURKY COMPANY TOFURKY HQ	Hood River	Yes (I-84)	No	No	7.2 kW	None	Replacing one Level 2 ports and adding three more	10+ months	1	3	0	0	$	175,000

72279	ChargePoint	LLOYD CENTER DC LLOYD CENTER	Portland	Yes (I-5 & I-84)	No	No	7.2 kW	1	Replacing one DC port and adding three more	10+ months	0	0	1	3	$	700,000
77444	ChargePoint	COLUMBIA BASIN HEPPNER	Heppner	No	No	Yes	7.2 kW	4.9	Replacing two Level 2 ports and adding two more	10+ months	2	2	0	0	$	150,000
79303	ChargePoint	REMER INC RUBY'S GRILL	Seaside	Yes (US 101)	No	No	7.2 kW	1	Replacing two Level 2 ports and adding two more	10+ months	2	2	0	0	$	150,000
86955	ChargePoint	LINCOLN CITY LINCOLN DUAL 2	Lincoln City	Yes (US 101)	No	Yes	7.2 kW	6.4	Replacing one Level 2 ports and adding three more	10+ months	1	3	0	0	$	175,000
94513	ChargePoint	BEND BMW STATION 02	Bend	Yes (US 97)	No	No	7.2 kW	9	Replacing one Level 2 port and adding three more	10+ months	1	3	0	0	$	175,000
145507	ChargePoint	SOFTSTAR SHOES STATION 1	Philomath	Yes (US 20)	No	No	7.2 kW	10	Replacing one Level 2 ports and adding three more	10+ months	1	3	0	0	$	175,000
154242	ChargePoint	PGE PGESE29THAVE	Portland	Yes (US 26)	No	No	7.2 kW	6.2	Replacing one Level 2 ports and adding three more	10+ months	1	3	0	0	$	175,000
155571	ChargePoint	HILLSBORO OR ITF #4	Hillsboro	No	No	Yes	7.2 kW	None	Replacing two Level 2 ports and adding two more	10+ months	2	2	0	0	$	150,000
156211	ChargePoint	OSU FAIRBANKS NORTH	Corvallis	Yes (US 20)	No	No	7.2 kW	10	Replacing one Level 2 port and adding three more	10+ months	1	3	0	0	$	175,000
164640	ChargePoint	FLATS EV 1 FLATS AT CHASE	Eugene	No	No	No	7.2 kW	None	Replacing two Level 2 ports and adding two more	10+ months	2	2	0	0	$	150,000
170955	ChargePoint	RIVERHOUSE 1 RIVERHOUSE EV	Bend	Yes (US 97)	No	No	7.2 kW	2.4	Replacing one Level 2 port and adding three more	10+ months	1	3	0	0	$	175,000
171615	ChargePoint	HILLSBORO OR ITF EV-10	Hillsboro	No	No	Yes	7.2 kW	4.4	Replacing two Level 2 ports and adding two more	10+ months	2	2	0	0	$	150,000
171722	ChargePoint	US BANCORP 5TH AVE GARAGE2	Portland	Yes (I-5)	No	Yes	7.2 kW	10	Replacing two Level 2 ports and adding two more	10+ months	2	2	0	0	$	150,000
174515	ChargePoint	DAS OREGON AIRPORT RD 4	Salem	Yes (I-5)	No	Yes	7.2 kW	9	Replacing five Level 2 ports	10+ months	5	0	0	0	$	150,000
175930	ChargePoint	WELLSFARGO WFC CENTER	Portland	Yes (I-405)	No	No	7.2 kW	None	Replacing four Level 2 ports	10+ months	4	0	0	0	$	150,000
181958	ChargePoint	OMIC STATION 2	Scappoose	No	No	No	7.2 kW	None	Replacing one Level 2 ports and adding three more	10+ months	1	3	0	0	$	175,000
183151	ChargePoint	CENTURY PICEA	Hillsboro	No	No	No	7.2 kW	None	Replacing four Level 2 ports	10+ months	4	0	0	0	$	150,000
185446	ChargePoint	LEVEL 1 GARAGE CAR CHARGER 1	Portland	Yes (I-405)	No	No	7.2 kW	None	Replacing four Level 2 ports	10+ months	4	0	0	0	$	150,000
196560	ChargePoint	CITY ROSEBURG FIR GROVE #1	Roseburg	Yes (I-5)	No	Yes	7.2 kW	3.6	Replacing two Level 2 ports and adding two more	10+ months	2	2	0	0	$	150,000
221122	ChargePoint	LANE COUNTY LC P&P (SOUTH)	Eugene	No	No	Yes	7.2 kW	None	Replacing two Level 2 ports and adding two more	10+ months	2	2	0	0	$	150,000
232957	ChargePoint	PGE 1	Silverton	No	No	No	7.2 kW /	10	Replacing one DC port and adding two more	10+ months	0	0	1	2	$	500,000
259262	ChargePoint	JIM DORAN AUTO SVC ST	McMinnville	No	No	No	7.2 kW	None	Replacing one Level 2 ports and adding three more	10+ months	1	3	0	0	$	175,000
165568	Electrify America	Lake Oswego OR1-110 (Lake Oswego, OR)	Lake Oswego	No	Yes	no	150 kW	9.6	Replace 2 dispensers at a 4-dispenser site. Dispensers are out of warranty and cannot be cost-effectively amended through continued repair. Chargers meet NOFO definition of "broken or inoperable" as they no longer function as intended by the manufacturer due to equipment degradation. Issues include approximately 31% downtime during Q3.	4 months	0	0	2	0	$	265,919
169413	Electrify America	Simon Woodburn Premium Outlets (Woodburn, OR)	Woodburn	Yes (I-5)	Yes	No	150 kW	7.3	Replace 3 dispensers at a 4-dispenser site. Dispensers are out of warranty and cannot be cost-effectively amended through continued repair. Chargers meet NOFO definition of "broken or inoperable" as they no longer function as intended by the manufacturer due to equipment degradation. Issues include approximately 16% downtime during Q3 and failure to deliver manufacturer-intended power levels.	4 months	0	0	3	0	$	393,879
201424	Electrify America	Kroger Fred Meyer 125 (Portland, OR)	Portland	Yes (I-84)	Yes	no	150 kW	7.9	Replace 2 dispensers at a 4-dispenser site. Dispensers are out of warranty and cannot be cost-effectively amended through continued repair. Chargers meet NOFO definition of "broken or inoperable" as they no longer function as intended by the manufacturer due to equipment degradation. Issues include approximately 15% downtime during Q3 (rising to 25% in Sept.).	4 months	0	0	2	0	$	265,919
212640	Electrify America	Kroger Fred Meyer 135 (Portland, OR)	Portland	Yes (US 26)	Yes	no	150 kW	5.1	Replace 2 dispensers at a 4-dispenser site. Dispensers are out of warranty and cannot be cost-effectively amended through continued repair. Chargers meet NOFO definition of "broken or inoperable" as they no longer function as intended by the manufacturer due to equipment degradation. Issues include failure to deliver manufacturer-intended power levels.	4 months	0	0	2	0	$	265,919
220265	Electrify America	Kroger-Fred Meyer 482 (Beaverton, OR)	Beaverton	Yes (US 26)	Yes	No	150 kW	7.6	Replace 4 dispensers at a 4-dispenser site. Dispensers are out of warranty and cannot be cost-effectively amended through continuned repair. Chargers meet NOFO definition of "broken or inoperable" as they no longer function as intended by the manufacturer due to equipment degradation. Issues include approximately 38% downtime during Q3 and failure to deliver manufacturer-intended power levels.	4 months	0	0	4	0	$	521,838
183927	EV Connect	Clatsop Community College	Astoria	No	Unknown	Yes	Unknown	7.8	Unknown	None Provided	0	3	1	0	None	
227962	EVgo	7-Eleven	Portland	No	Yes	No	50 kW	1	Unknown	12 months	0	0	2	2	None	
228579	EVgo	Washington Square	Portland	No	Yes	no	50 kW	1.4	Replace 2 50 kW charging ports with four 175 kW charging ports.	12 months	0	0	2	2	$	776,000
62982	OpConnect	Courtyard Marriott - Tigard Oregon	Tigard	Yes (I-5)	No	no	7.68 kW / 50 kW	3.8	Need to replace one 50kW DCFC with a 150k W DCFC and add three 150kW DCFC ports for 680.106 (b)(1) compliance. Also need to replace one L2 port	None Provided	1	0	1	3	$	770,481
62983	OpConnect	Lincoln Center - Gustav's Restaurant	Tigard	No	No	no	7.68 kW / 50 kW	None	Need to replace one 50kW DCFC with a 150kW DCFC. Need to replace (1) non-functioning level 2 charging ports with (1) 7.68kW Energy Star Certified level 2 charging ports. Also, Need to install (1) additional level 2 charging port and (1) additional 150kW DCFC to meet 680.106(b)(2) compliance.	None Provided	1	1	1	1	$	389,802
62984	OpConnect	Arlington Oregon City Hall	Arlington	Yes (I-84)	No	Yes	7.68 kW / 50 kW	None	Need to replace one 50kW DCFC with a 150k W DCFC and add three 150kW DCFC ports for 680.106 (b)(1) compliance. Also need to replace one L2 port	None Provided	1	0	1	3	$	770,481

62985	OpConnect	Roth's South Salem Oregon	Salem	No	No	No	7.68 kW / 50 kW	None	Need to replace one 50kW DCFC with a 150 kW DCFC and replace one L2 port. Also, need to install (1) additional 7.68kW level 2 charging ports and (1) additional 150 kW DCFC680.106 (b)(1) compliance.	None Provided	1	1	1	1	$	389,802
65927	OpConnect	NE MLK Boulevard - Portland OR	Portland	No	No	No	7.68 kW	None	Need to replace (2) non-functioning level 2 charging ports with (2) 7.68kW Energy Star Certified level 2 charging ports. Also, Need to install (2) additional 150 kW DCFC ports to meet 680.106(b)(2) compliance.	None Provided	2	0	0	2	$	389,802
71432	OpConnect	Tri-Met Oregon Park Ave Park N Ride	Portland	No	No	Yes	7.68 kW	None	Need to replace 7 L2 ports	None Provided	4	0	0	0	$	39,186
74212	OpConnect	Madras, OR City Hall/PD	Madras	Yes (US 26 & US 97)	No	No	7.68 kW / 50 kW	None	Need to replace one 50kW DCFC with a 150k W DCFC and add three 150kW DCFC ports for 680.106 (b)(1) compliance. Also need to replace one L2 port	None Provided	1	0	1	3	$	770,481
165584	OpConnect	Salem Motor Pool	Salem	Yes (I-5)	No	Yes	50 kW	2.1	Need to replace one 50kW DCFC with a 150k W DCFC and add three 150kW DCFC ports for 680.106 (b)(1) compliance.	None Provided	0	0	1	3	$	764,061
312356	OpConnect	Tri-Met Tacoma and Johnson Creek Park N Ride	Portland	No	No	No	7.68 kW	None	Need to replace (2) non-functioning level 2 charging ports with (2) 7.68kW Energy Star Certified level 2 charging ports and install (2) additional 150kW DCFCs. Also, Need to install (2) additional level 2 charging ports to meet 680.106(b)(2) compliance.	None Provided	2	2	0	2	$	389,802
312592	OpConnect	Reynolds School District	Fairview	Yes (I-84)	No	No	7.68 kW	None	Unknown	None Provided	1	3	0	0	None	
126267	Shell Recharge	Clatskanie PUD Office	Clatskanie	No	Unknown	Yes	7.2 kW /	6.4	Unknown	None Provided	0	0	2	2	None	
193260	Shell Recharge	Hillsboro Electric Avenue	Hillsboro	No	Unknown	no	50 kW	7.2	2 "active," 1 "faulted"	None Provided	0	0	1	1	None	
193812	Shell Recharge	Electric Island	Portland	No	Unknown	no	75-360 kW	7.4	1 "active," 2 "faulted," 1 "offline"	None Provided	0	0	3	0	None	
204785	Shell Recharge	Beaverton Electric Avenue	Beaverton	No	Unknown	Yes	50 kW	3	4 "active," 1 "faulted," 1"unknown"	None Provided	0	0	2	0	Provided	

Appendix B - Ineligible Sites

ID	EV Network	Station Name	Total Ports	L2 Ports	DCFC Ports	Reason for Exclusion from Final Budget
147850	Blink	431002 : Heartline	6	6	0	Not public - restrictions in place
156604	Blink	Murray Business Center	2	2	0	Not public - restrictions in place
187292	Blink	District 2 East	1	1	0	Confirmed as working by EVSP
262894	Blink	Portland State University - RMNC	1	1	0	Confirmed as working by EVSP
309250	Blink	531011 : Nike Talaria	1	1	0	Not public - restrictions in place
309823	Blink	BLOCK 300 Location P1	1	1	0	Confirmed as working by EVSP
171262	ChargePoint	LEVEL 1 GARAGE CAR CHARGER 2	2	2	0	Duplicate entry - same as ID 185446
174514	ChargePoint	DAS OREGON AIRPORT RD 7	1	1	0	Duplicate entry - same as ID 174516
174517	ChargePoint	DAS OREGON AIRPORT RD 9	2	2	0	Duplicate entry - same as ID 174516
183152	ChargePoint	CENTURY SEQUOIADENDRON	2	2	0	Duplicate entry - same as ID 183151
236343	ChargePoint	WELLSFARGO WFC CENTER PDX1	2	2	0	Duplicate entry - same as ID 175931
121710	Electrify America	Walmart 1889 Island City	1	0	1	Confirmed as working by EVSP
149740	Electrify America	Walmart 1784 - Salem, OR	1	0	1	Confirmed as working by EVSP
163343	Electrify America	Fred Meyer 40 (Portland, OR)	1	0	1	Confirmed as working by EVSP
190192	Electrify America	Walmart 2075 (Bend, OR)	1	0	1	Confirmed as working by EVSP
227958	EVgo	REI	2	1	1	DCFC confirmed as working by EVSP (Level 2 port is broken); Site is located w/in 1 mile of AFC and site not interested in bringing up to NEVI Corridor standards
228386	EVgo	New Seasons	2	1	1	DCFC confirmed as working by EVSP (Level 2 port is broken); Site is located w/in 1 mile of AFC and site not interested in bringing up to NEVI Corridor standards
103997	Non-Networked	Talent Community Center	2	2	0	Non-Networked
104259	Non-Networked	Power Chevrolet	2	1	1	Non-Networked
170922	Shell Recharge	Electric Ave	1	1	0	Confirmed as working by EVSP
190805	Shell Recharge	Bel Air Drive	1	0	1	Confirmed as working by EVSP
117121	Volta	Gateway Shopping Center	2	2	0	Confirmed as working by EVSP
151796	Volta	Walgreens 7010 NE CORNELL RD., HILLSBORO	2	2	0	Confirmed as working by EVSP
151797	Volta	Walgreens 955 SE BASELINE ST, HILLSBORO	2	2	0	Confirmed as working by EVSP
151866	Volta	Walgreens 25699 SE STARK S, TROUTDALE	2	2	0	Confirmed as working by EVSP
151867	Volta	Walgreens 10903 SE OAK ST, MILWAUKIE	2	2	0	Confirmed as working by EVSP
151868	Volta	Walgreens 20100 MCLOUGHLIN BLVD, GLADSTONE	2	2	0	Confirmed as working by EVSP
151869	Volta	Walgreens 13470 NW CORNELL RD, PORTLAND	2	2	0	Confirmed as working by EVSP

Appendix C - Oregon EVC-RAA Program Budget

ID	EV Network	Station Name	L2 Replacements Requested	Additional L2 Ports	DCFC Replacements Requested	Additional DCFC Ports	EVSP Estimated Cost	ODOT Estimated Cost
95226	Blink	Randall Children's Hospital - Parking Garage 4	2	2	0	0	$ 23,927	$ 42,300
95690	Blink	First Alternative Cooperative North	1	3	0	0	$ 23,927	$ 53,450
95750	Blink	Hotel Rose Portland	1	3	0	0	$ 23,927	$ 53,450
95940	Blink	Providence - Office Park	1	3	0	0	$ 23,927	$ 53,450
95942	Blink	Providence - Milwaukie Hospital	1	3	0	0	$ 23,927	$ 53,450
95943	Blink	Providence - Willamette Falls Medical Center	1	3	0	0	$ 23,927	$ 53,450
95944	Blink	Providence Medical Group - Tanasbourne	1	3	0	0	$ 23,927	$ 53,450
95947	Blink	Providence - Portland Medical Center - Glisan Parking	2	2	0	0	$ 23,927	$ 42,300
96295	Blink	City of Falls City	1	3	0	0	$ 23,927	$ 53,450
96542	Blink	Danielson's Hilltop Mall	1	3	0	0	$ 23,927	$ 53,450
104060	Blink	Providence - Portland Medical Center - Glisan Parking	4	0	0	0	$ 23,927	$ 20,000
120905	Blink	The Windward	1	3	0	0	$ 23,927	$ 53,450
122667	Blink	McDonalds on Farmington Rd	1	3	0	0	$ 23,927	$ 53,450
147866	Blink	MRC	1	3	0	0	$ 23,927	$ 53,450
147873	Blink	J Building	2	2	0	0	$ 23,927	$ 42,300
147893	Blink	Winderlea Vineyard and Winery	1	3	0	0	$ 23,927	$ 53,450
147901	Blink	Joel Palmer House Restaurant	2	2	0	0	$ 23,927	$ 42,300
147920	Blink	Kaiser - Keizer Station Dental	1	3	0	0	$ 23,927	$ 53,450
147937	Blink	Andante Vineyard Main	1	3	0	0	$ 23,927	$ 53,450
147946	Blink	Willamette Valley Vineyards	2	2	0	0	$ 23,927	$ 42,300
148055	Blink	Broadway South	1	3	0	0	$ 23,927	$ 53,450
148084	Blink	Walgreens - Roseburg, OR #12068	1	3	0	0	$ 23,927	$ 53,450
149657	Blink	RV Building	2	2	0	0	$ 23,927	$ 42,300
153217	Blink	Kaiser - Beaverton Medical Office	1	3	0	0	$ 23,927	$ 53,450
164223	Blink	Vista De Rosas	3	1	0	0	$ 23,927	$ 31,150
165325	Blink	The Resort at Seaside	1	3	0	0	$ 23,927	$ 53,450
168248	Blink	North Plains Veterans Park	2	2	0	0	$ 23,927	$ 42,300
168512	Blink	Ride Connection	1	3	0	0	$ 23,927	$ 53,450
170127	Blink	Native American Youth and Family Center	4	0	0	0	$ 23,927	$ 20,000
187749	Blink	Garden Garage	4	0	0	0	$ 23,927	$ 20,000
190549	Blink	Halsey City Hall	1	3	0	0	$ 23,927	$ 53,450
193268	Blink	OSU - Parking Structure	1	3	0	0	$ 23,927	$ 53,450
193270	Blink	OSU - Reser Stadium Parking Lot	1	3	0	0	$ 23,927	$ 53,450
193982	Blink	Millrace Professional Building	1	3	0	0	$ 23,927	$ 53,450
195062	Blink	SMR AUO 1	1	3	0	0	$ 23,927	$ 53,450
195164	Blink	City Hall	2	2	0	0	$ 23,927	$ 42,300
195302	Blink	Collin	4	0	0	0	$ 23,927	$ 20,000
195420	Blink	INDIGO @ 12 west	2	2	0	0	$ 23,927	$ 42,300
195502	Blink	The Arbory Building B	1	3	0	0	$ 23,927	$ 53,450
195504	Blink	MRC 2	1	3	0	0	$ 23,927	$ 53,450
195505	Blink	O\'Neill	3	1	0	0	$ 23,927	$ 31,150
195506	Blink	Pepin	4	0	0	0	$ 23,927	$ 20,000

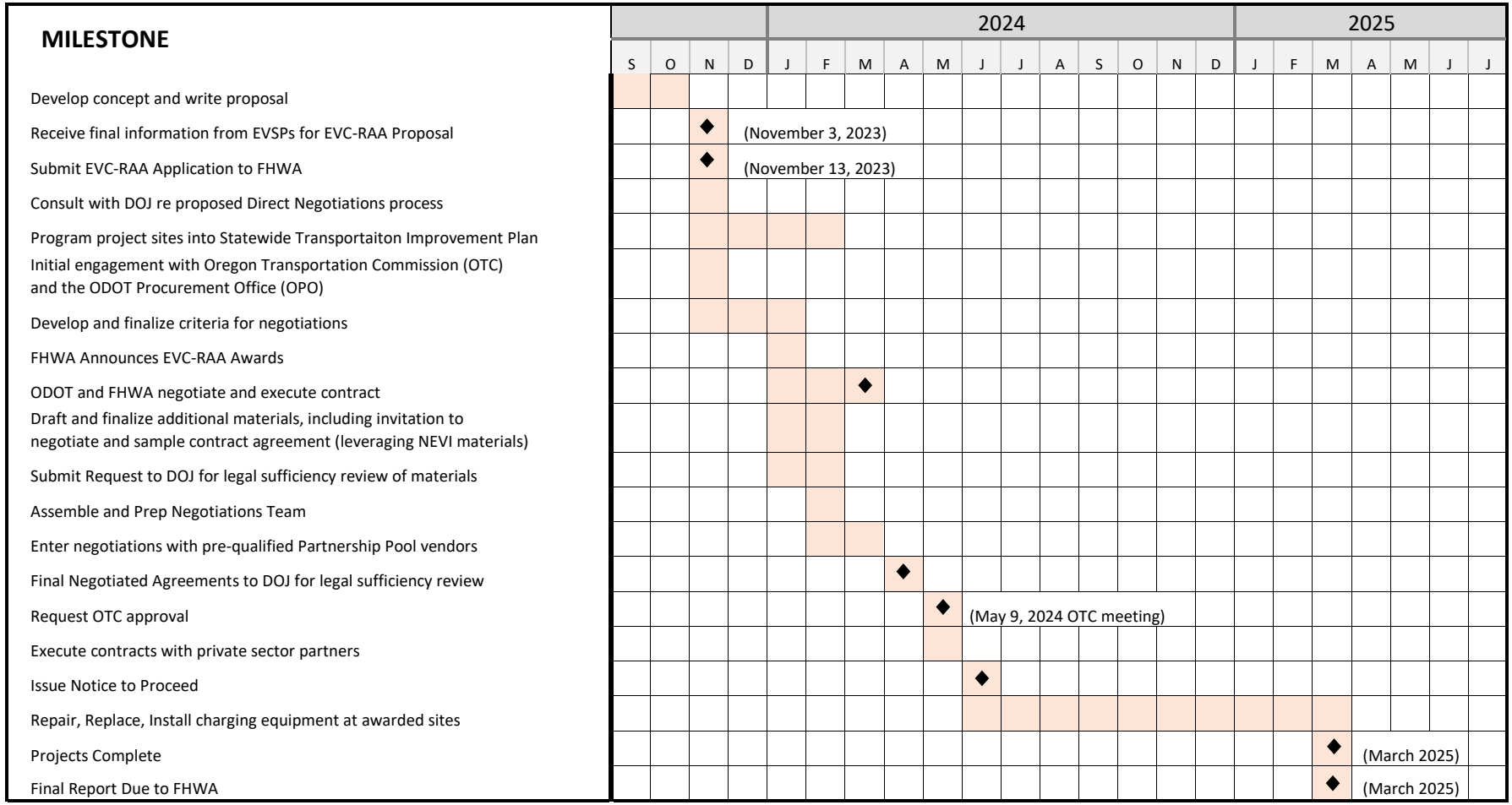
195556	Blink	Market Center Building	2	2	0	0	$ 23,927	$ 42,300
195557	Blink	531006 : Oregon Health & Science University	1	3	0	0	$ 23,927	$ 53,450
195560	Blink	Quality Inn	2	2	0	0	$ 23,927	$ 42,300
201789	Blink	Capitol Chevrolet - Customer Parking	0	3	1	0	$ 220,000	$ 123,450
205180	Blink	Walgreens - Eugene, OR #12491	1	3	0	0	$ 23,927	$ 53,450
213858	Blink	Tigard Senior Center	2	2	0	0	$ 23,927	$ 42,300
218193	Blink	Ashland Hills Hotel	1	3	0	0	$ 23,927	$ 53,450
220743	Blink	Oliver Station Apartments - East	1	3	0	0	$ 23,927	$ 53,450
225266	Blink	Oliver Station Apartments - West	1	3	0	0	$ 23,927	$ 53,450
225273	Blink	City Parking Lot - Library & Community Center	1	3	0	0	$ 23,927	$ 53,450
226723	Blink	Providence - Medford Medical Center	1	3	0	0	$ 23,927	$ 53,450
250804	Blink	47th Avenue Parking	1	3	0	0	$ 23,927	$ 53,450
257391	Blink	Eastgate Business Center	1	3	0	0	$ 23,927	$ 53,450
257455	Blink	The Hotel Zags Portland	1	3	0	0	$ 23,927	$ 53,450
262709	Blink	Portland State University	1	3	0	0	$ 23,927	$ 53,450
309903	Blink	Quarry Apartments	1	3	0	0	$ 23,927	$ 53,450
309930	Blink	Buri BLDG	1	3	0	0	$ 23,927	$ 53,450
310041	Blink	Springfield Utility Board	1	3	0	0	$ 23,927	$ 53,450
310154	Blink	Ascend Apartments	1	3	0	0	$ 23,927	$ 53,450
310443	Blink	Roseburg Honda	1	3	0	0	$ 23,927	$ 53,450
53039	ChargePoint	TOFURKY COMPANY TOFURKY HQ	1	3	0	0	$ 175,000	$ 53,450
72279	ChargePoint	LLOYD CENTER DC LLOYD CENTER	0	0	1	3	$ 700,000	$ 675,000
77444	ChargePoint	COLUMBIA BASIN HEPPNER	2	2	0	0	$ 150,000	$ 42,300
79303	ChargePoint	REMER INC RUBY'S GRILL	2	2	0	0	$ 150,000	$ 42,300
86955	ChargePoint	LINCOLN CITY LINCOLN DUAL 2	1	3	0	0	$ 175,000	$ 53,450
94513	ChargePoint	BEND BMW STATION 02	1	3	0	0	$ 175,000	$ 53,450
145507	ChargePoint	SOFTSTAR SHOES STATION 1	1	3	0	0	$ 175,000	$ 53,450
154242	ChargePoint	PGE PGESE29THAVE	1	3	0	0	$ 175,000	$ 53,450
155571	ChargePoint	HILLSBORO OR ITF #4	2	2	0	0	$ 150,000	$ 42,300
156211	ChargePoint	OSU FAIRBANKS NORTH	1	3	0	0	$ 175,000	$ 53,450
164640	ChargePoint	FLATS EV 1 FLATS AT CHASE	2	2	0	0	$ 150,000	$ 42,300
170955	ChargePoint	RIVERHOUSE 1 RIVERHOUSE EV	1	3	0	0	$ 175,000	$ 53,450
171615	ChargePoint	HILLSBORO OR ITF EV-10	2	2	0	0	$ 150,000	$ 42,300
171722	ChargePoint	US BANCORP 5TH AVE GARAGE2	2	2	0	0	$ 150,000	$ 42,300
174515	ChargePoint	DAS OREGON AIRPORT RD 4	5	0	0	0	$ 150,000	$ 25,000
175930	ChargePoint	WELLSFARGO WFC CENTER	4	0	0	0	$ 150,000	$ 20,000
181958	ChargePoint	OMIC STATION 2	1	3	0	0	$ 175,000	$ 53,450
183151	ChargePoint	CENTURY PICEA	4	0	0	0	$ 150,000	$ 20,000
185446	ChargePoint	LEVEL 1 GARAGE CAR CHARGER 1	4	0	0	0	$ 150,000	$ 20,000
196560	ChargePoint	CITY ROSEBURG FIR GROVE #1	2	2	0	0	$ 150,000	$ 42,300
221122	ChargePoint	LANE COUNTY LC P&P (SOUTH)	2	2	0	0	$ 150,000	$ 42,300
232957	ChargePoint	PGE 1	0	0	1	2	$ 500,000	$ 338,000
259262	ChargePoint	JIM DORAN AUTO SVC ST	1	3	0	0	$ 175,000	$ 53,450
165568	Electrify America	Lake Oswego OR1-110 (Lake Oswego, OR)	0	0	2	0	$ 265,919	$ 250,000
169413	Electrify America	Simon Woodburn Premium Outlets (Woodburn, OR)	0	0	3	0	$ 393,879	$ 375,000
201424	Electrify America	Kroger Fred Meyer 125 (Portland, OR)	0	0	2	0	$ 265,919	$ 250,000
212640	Electrify America	Kroger Fred Meyer 135 (Portland, OR)	0	0	2	0	$ 265,919	$ 250,000
220265	Electrify America	Kroger-Fred Meyer 482 (Beaverton, OR)	0	0	4	0	$ 521,838	$ 500,000
183927	EV Connect	Clatsop Community College	0	3	1	0	$ 98,450	$ 98,450
227962	EVgo	7-Eleven	0	0	2	2	$ 336,000	$ 336,000

228579	EVgo	Washington Square	0	0	2	2	$ 776,000	$ 650,000
62982	OpConnect	Courtyard Marriott - Tigard Oregon	1	0	1	3	$ 770,481	$ 730,000
62983	OpConnect	Lincoln Center - Gustav's Restaurant	1	1	1	1	$ 389,802	$ 189,150
62984	OpConnect	Arlington Oregon City Hall	1	0	1	3	$ 770,481	$ 730,000
62985	OpConnect	Roth's South Salem Oregon	1	1	1	1	$ 389,802	$ 189,150
65927	OpConnect	NE MLK Boulevard - Portland OR	2	0	0	2	$ 389,802	$ 410,000
71432	OpConnect	Tri-Met Oregon Park Ave Park N Ride	4	0	0	0	$ 39,186	$ 20,000
74212	OpConnect	Madras, OR City Hall/PD	1	0	1	3	$ 770,481	$ 730,000
165584	OpConnect	Salem Motor Pool	0	0	1	3	$ 764,061	$ 725,000
312356	OpConnect	Tri-Met Tacoma and Johnson Creek Park N Ride	2	2	0	2	$ 389,802	$ 442,300
312592	OpConnect	Reynolds School District	1	3	0	0	$ 53,450	$ 53,450
126267	Shell Recharge	Clatskanie PUD Office	0	0	2	2	$ 336,000	$ 336,000
193260	Shell Recharge	Hillsboro Electric Avenue	0	0	1	1	$ 168,000	$ 168,000
193812	Shell Recharge	Electric Island	0	0	3	0	$ 250,000	$ 250,000
204785	Shell Recharge	Beaverton Electric Avenue	0	0	2	0	$ 100,000	$ 100,000

	L2 Replacements	L2 Installations	DCFC Replacements	DCFC Installations
Total Ports	148	208	35	30

	EVSP Estimate	ODOT Estimate
Total Project Cost	$ 14,759,820	$ 12,738,200
5% Administration	$ 737,991	$ 636,910
Program Budget	$ 15,497,811	$ 13,375,110
80% Federal Share	$ 12,398,249	$ 10,700,088
20% Private Sector Cost Share	$ 3,099,562	$ 2,675,022

Appendix D - EVC-RAA Gantt Chart



◆ milestone achieved

Appendix E: Draft NEVI Exhibit – Title 23 Requirements

Technical Specifications and Requirements for Operation For DCFC EVSE Deployment and Use at Oregon NEVI Charging Stations

I. Technical Specifications for DCFC Electric Vehicle Supply Equipment (EVSE) Deployed at Oregon National Electric Vehicle Infrastructure-Charging Stations:

Oregon NEVI charging stations shall meet the following technical requirements:

Equipment and Installation Specifications

At a minimum, Direct Current Fast Charger (DCFC) Electric Vehicle Supply Equipment (EVSE) charging equipment and installations must fulfill these requirements:

1. DCFC EVSE at NEVI charging stations must be installed in compliance with National Fire Protection Association (NFPA) 70, National Electric Code (NEC) Article 625 and all applicable State and local Electrical Codes currently adopted and enforced within the jurisdiction of installation, including all associated work with circuits, electrical service, and meters.
2. All new installations and upgrades of EV charging equipment must be performed in a professional manner, in accordance with industry best practices and with all federal, state, and local government laws, ordinances, codes and utility requirements.
3. NEVI Station DCFC EVSE configuration in Oregon:
    a. DCFC EV charging equipment must offer a minimum of 150 kW power capable of being delivered simultaneously within each charging station
    b. Oregon NEVI Charging stations shall include a minimum of four DCFC EVSE, with one of the four DCFC EVSE offering greater than 150 kW of power (with power to each station capable of supporting in excess of 600 kW when all four DCFC EVSE are in use simultaneously)
    c. DCFC EVSE shall be networked and shall include two permanently attached dispensers at each EVSE:
        i. At each of the four DCFC EVSE at each of the NEVI stations, there shall be included one port with a permanently attached charging cable and SAE CCS-1 charging connector capable of delivering a minimum of 150 kW of power÷ (or the rated power level capability of the EVSE, whichever is higher)
        ii. At three of the four DCFC-EVSE at each NEVI station, one permanently attached dispenser shall incorporate a North American Charging Standard (NACS) connector (capable of delivering a minimum of 150 kW of power)
        iii. At the remaining fourth DCFC EVSE at each NEVI station, one permanently attached dispenser shall include a CHAdeMO connector (capable of delivering 150 kW of power or the highest power rating available, if lower)
        iv. Each NEVI charging station shall incorporate futureproofing for a minimum of two additional DCFC EVSE. Future proofing requires, at a minimum, installing conduit and wiring at each station capable of serving two additional 350 kW DCFC EVSE, on-site, to enable operation of each future additional EVSE in concert with the existing four NEVI DCFC within each NEVI charging station
    e. Power sharing is permissible above the minimum 150kW per-port requirement for DCFCs, but each port must maintain the ability to deliver 150kW simultaneously.
    f. Oregon is requiring that 50 % of NEVI stations along the EV Alternative Fuel Corridor to be developed to encompass a pull-through design, so that pull-through. charging stations are available roughly every 100 miles along the corridor. Additional pull-through stations (above 50%) are encouraged.
    g. Oregon is encouraging superior amenities, use of renewable power (via additional Oregon Clean Fuels Program credits that use of renewable power will generate for the owner of the charging stations). See Attachment B for Recommended Site Location attributes.
4. EV charging stations must use technology that is compatible with most currently available EV models.
5. DCFC charging equipment is required to support output voltages between 250 volts DC and 920 volts DC
6. Each site shall have adequate transformer capacity, switch gear and panel for the four Oregon NEVI DCFC EVSE (three EVSE with a minimum 150 kW power and one EVSE with > than 150 kW power), and appropriate conduit and wiring. Future proofing, with conduit and wiring, so that each DCFC EVSE could be support higher power DCFC EVSE is encouraged and is required for the future expansion of each station to include two EVSE of up to 350 kW.
7. All EV charging station equipment, including kiosks (if any) must be certified to operate outdoors and withstand extreme weather conditions (minimum NEMA 3R or NEMA 4), including temperature extremes, flooding, heavy rains, and high winds.
8. EV charging equipment and all display screens should be sturdy enough to withstand most types of vandalism.

9. charging stations must include user interfaces that are legible in both day and nighttime conditions, and display screens must be protected from malfunction due to condensation and any local area weather condition. Screens must be readable in bright sunlight and must be shielded to protect against degradation due to UV rays.
10. Provide clear signage from the Highway to the EV charging site, and within the charging station Host Site, provide signage to note "EV Charging Only" parking locations.
11. Charging equipment must include adequate cord length (minimum of 12 feet, with greater lengths encouraged); cable coupler that complies with NEC Article 625 protection, and storage for charging cords. Charging equipment must incorporate a cord management system to minimize the potential for cable entanglement, user injury or connector damage from lying on the ground and be designed for operator ease-of-use. Where included 110 / 120-volt outlets must be GFCI (ground fault circuit interrupter outlets), be weather resistant, have weather-proof in-use covers, and meet National Electric Code requirements.
12. Charging equipment must be protected from vehicle collision and other damage to ground, pedestal, or wall-mounted equipment (e.g., by the inclusion of guard posts, wheel stops, curb protection, or wall-mounted barriers).
13. EV charging equipment and payment equipment must have a minimum five-year warranty (either from the manufacturer, a third party or the Contractor), including repair and replacement for vandalism.
14. All EV charging equipment must be certified by the Underwriters Laboratories, Inc. (UL) or through another Nationally Recognized Testing Laboratory (NRTL) program to demonstrate compliance with appropriate product safety standards. If no NRTL or UL certification is available for any type of equipment (e.g., NACS connectors permanently attached to charging equipment), Contractor will address methods for ensuring safety for this equipment.
15. DCFC charging equipment must have the ability to be powered down to 50kW so they are compatible for use by older light-duty EVs.

Interoperability, Universal Roaming, and Vehicle Grid Integration

16. All charging station equipment must be compliant with Open Charge Point Protocol (OCPP) 1.6J (or newer) requirements. By February 28th, 2024, charging station equipment must conform to OCPP 2.0.1 The EV charging equipment must be capable of switching networks without requiring the replacement of the DCFC equipment or other technological, contractual, and/or other unreasonable restrictions, as noted in the *Requirements for Operation* section of this Attachment.
17. Charging stations must conform to ISO 15118-3 and have hardware capable of implementing both ISO 15118-2 and ISO 15118-20
18. EV charging station equipment must enable universal roaming and be in compliance with the Open Charge Point Interface (OCPI) standards as the communications protocol, as specified in the NEVI guidance and in Oregon's Requirements for Operation section of this Attachment. Per NEVI guidance, by February 28th, 2024, charging networks must be capable of communicating with other charging networks in accordance with OCPI 2.2.1.
19. EV charging station equipment must be compliant with Open ADR 2.0, or similar technology for communications with utilities, as specified in the Requirements for Operation section of this Attachment.
20. By February 28th, 2024, charging equipment must be capable of Plug and Charge. Conformance testing for charger software and hardware should follow ISO 15118-4 and 15118-5, respectively.
21. Chargers must remain functional if communication with the charging network is temporarily disrupted, such that they initiate and complete charging sessions, providing the minimum required power level.
22. DCFC charging ports must support output voltages between 250 volts DC and 920 volts DC. DCFCs located along and designed to serve users of designated AFCs must have a continuous power delivery rating of at least 150kW and supply power according to an EV's power delivery request up to (or above) 150kW, simultaneously from each charging port at a charging station.
23. Proposer is required to submit a detailed cybersecurity plan to Agency for review and approval.

Open Access, Payment Options, Remote Diagnostics, and Data Capture

24. EV charging stations must provide Open Access as specified in the Requirements for Operations section of this Attachment.
25. EV charging stations must provide clear, simple, and real-time pricing information displayed on the device or payment screen and provide a contactless payment method that accepts major credit and debit cards. Oregon requires that a customer service toll-free number capable of accepting payment be available, with the toll-free number clearly displayed at each EVSE at each charging station. Additionally, Oregon requires that a mobile payment option(s) be provided (such as a QR code, Apple Pay, Google Pay). Stations are prohibited from requiring a membership for use; however, Oregon allows for memberships and RFID cards, at Contractor expense. NEVI EV charging stations must not delay, limit, or curtail power flow to vehicles based on payment method or membership.
26. Charging Stations are required to provide access for users that are limited English proficient and accessibility for people with disabilities. Automated toll-free phone numbers (and optional SMS payment options) must clearly identify payment access for these populations.

27. All EV charging equipment must charge the consumer via a "per kWh" pricing mechanism.
28. Operator must maintain appropriate hardware and software that allows for remote diagnostics, "remote start" of the charging equipment, and collecting and reporting of usage data.
29. EV charging equipment must be capable of usage data capture as well as cost recovery via payment options specified in the Requirements for Operation section of this Attachment.

I. Requirements for Operation

Enrollment in the Oregon Clean Fuels Program

The Contractor shall be required to enroll in Oregon's Clean Fuel Program, operated by the Oregon Department of Environmental Quality, which provides incentives in the form of Clean Fuels credits to the owner-operators of EV charging equipment for the provision of lower-carbon electricity to fuel vehicles. The Clean Fuels Program provides additional credit if renewable energy is used at EV charging stations and offers the opportunity for use of Advance Crediting for EV charging stations funded through the Bipartisan Infrastructure Law, via programs such as NEVI.

Open Access, Payment Options, Accessibility, and Customer Service Support

The Operator of Oregon NEVI EV charging stations shall ensure:

1. **Open Access:** EV charging stations must be accessible by all drivers regardless of network membership or subscriptions, and consumers must not be required to pay a subscription fee or otherwise obtain a membership in any network, club, association, or organization as a condition of using such public EV charging stations; provided, however, that owners and operators of NEVI-EV charging stations may offer separate price schedules conditional on a subscription or membership.
2. **Required Payment Options:** EV charging stations must be accessible (see *Accessibility* requirements below) and support multiple point-of-sale methods for users to pay for EV charging equipment. At a minimum, all EV charging equipment (or separate, adjacent payment kiosk) at EV charging stations must support the following pay-per-use options:
   i. Contactless payment by use of a Credit card and Debit card, without incurring excessive fees, inconvenience or delays compared to other payment methods;
      a. At a minimum, the following Credit card and Debit card types must be supported: Visa; MasterCard; and American Express.
      b. It is encouraged, but not required, that payment mechanisms include payment by Euro MasterCard Visa (EMV) chip credit/debit cards. If an EMV chip credit card/ debit card reader device is incorporated, it must be physically located on either the EV charging equipment or at a separate, adjacent kiosk in service of that EV charging equipment, and it must be non-locking and must always permit customers to remove Credit/Debit cards without damage to the card, including during a fault situation or a power failure.
      c. If a Credit card reader device is incorporated, it shall comply with PCI-DSS Level 1, for security for payment processing.
      d. Proposer shall provide description of any fees associated with payment.
   ii. Provide and display a toll-free number [and the option in addition to pay by short messaging service (commonly abbreviated as SMS)] on each DCFC, and/or kiosk used to service that charging equipment that provides the user with the option to initiate a charging session and make a payment by telephone at any time that the DCFC is operational and publicly available. (See requirements for Customer Service Support, below.) Payment mechanisms must
      a. Provide a mobile payment device physically located on the DCFC EV charging equipment, EVSE or kiosk used to service the EV charging stations.
      b. Provide access for users that are limited English proficient and accessibility for those with disabilities. Automated toll-free phone numbers (and optional SMS payment) must clearly identify payment access for these populations.
   iii. Operator's point-of-sale methods and supporting network must use an open protocol to allow subscribers of other light-duty EV charging networks to access the charging stations and to access the supporting network to obtain information concerning the charging stations.
   iv. In addition, if desired, Operator may offer users the option of a subscription and/or membership in proprietary payment plan(s) via a Radio-Frequency Identification (RFID) card and/or mobile app, with separate price schedules.
2. **Accessibility:** EV charging stations must be designed to be operational and publicly accessible year-round, 24 hours per day, 7 days per week. Existing stations, or proposed future stations, shall not be sited in limited-access venues, such as behind a fence or in a gated parking lot closed to the public after hours. Charging station sites must be on paved surfaces, in spots clearly designated as reserved for EV charging, adequately lit from dusk to dawn, and safe from traffic circulation and ingress/egress points.

3. **Customer Service Support:** All EV charging stations shall include clear use instructions and customer support contact information. A customer service support number shall be provided that is accessible to customers 24 hours a day, 7 days a week, through a toll-free telephone number that is clearly visible and posted on or near the charging equipment or kiosk, to assist customers with difficulties accessing or operating the charging station. This customer service number must account for users that are limited English proficient. Charging equipment must have remote diagnostics and the Operator must have the ability to "remote start" the equipment. Customer service support must be capable of dispatching or otherwise providing services to address operational problems at the charging station. A customer who calls the toll-free number must get immediate assistance, including rebooting the system if necessary, and must be able to make payment for EV charging at that site via the customer-service toll-free number.

Up time, Operations, Maintenance and Repair Obligations

The Operator of these charging stations must adhere to the following requirements for up time, Operations, Maintenance and Repair for a minimum of a five-year period following the commissioning of all chargers on the EV Alternative Fuel Corridor.

1. **Up time:** Each charging port at each DCFC charging station shall be operational greater than 97% of the time (and Operator shall have a specific plan to strive for 99% up time) based on a period of 24-hours a day, 7 days a week. Operator must respond to any issues such as, but not limited to, malfunctions, repairs, or vandalism within 24 hours (where feasible) of the initial notice and shall strive to respond and resolve most issues within 48 hours of initial notice. For complex issues including, but not limited to, power outages, charging equipment should be repaired within 2 – 5 days. Operator is required to provide quarterly operational reports on the charging network, including up time percentages by station, for each DCFC charging port, and reports on downtime causes and resolutions. The reports shall be due via the JOET's EV-ChART mechanism and according to the rules that will govern those data submittals, and, as desired by Agency, by the 10th day of the month immediately following the reported quarter.
2. **Operations:** Operator, and any successor-in-interest, shall be responsible for operating and maintaining the charging equipment, charging station pedestals and casings, and all ancillary equipment including cables, awnings, canopies, shelters, payment kiosks and informational display kiosks or signage associated with the charging station, in good working order and in compliance with all manufacturer requirements and recommendations for a period of at least five (5) years following the date when all stations covered by the Contract are commissioned and commence operation.
3. **Operations and Maintenance Plan:** Operator shall submit, for approval, an operations and maintenance plan for all DCFC EVSE charging equipment that ensures Operator is able to comply with the greater than 97% up time requirement (and demonstrates how Operator will strive to meet the target of 99% up time). Operator shall provide information on equipment warranties and include a Service Level Agreement (SLA) or equivalent mechanism to demonstrate how equipment can be repaired quickly, with most issues being resolved within two days of initial notice. Operator shall demonstrate its plan for snow removal to ensure access during inclement weather. ODOT intend to withhold 10 % of program funds to ensure compliance with reliability standards, maintenance and repair performance, and potentially other requirements (to be specified during contract negotiations), and will evaluate results annually, providing up to 2% each of the five years to correspond with reliability, operations, repair, and maintenance performance and any other requirements. Operator shall provide for regular (but not less frequently than quarterly) inspection, cleaning and maintenance of each charging station and all ancillary equipment, and will provide quarterly reports regarding inspection, cleaning and maintenance activities, operating status of chargers, percentage up time and down time, cause for down time and actions to redress the cause of down time – via JOET's EV CHART or as requested by Agency. Such reports shall be due by the 10th day of the month immediately following the reported quarter, or per specifications identified in JOET's EV CHART.
4. **Repair:** Operator shall initiate the process for making any needed repairs immediately, within 24 consecutive hours following notice of a malfunction or other operational issue, where feasible, and shall strive to respond and resolve most issues within 48 hours. For complex issues including, but not limited to, power outages, charging equipment should be repaired within 2 – 5 days. Proposer shall provide a list of potential complex issues and briefly address their strategy for resolving these issues. Agency expects that most issues shall be resolved within 48 hours of initial notice, and that complex issues be resolved within five days of initial notice. Operator shall develop a report, in a format mutually agreed upon by the parties, that at a minimum includes:
    a. Description of the reported problem or issue
    b. Source of report (individual/system)
    c. Date and time reported
    d. Date and time addressed/repaired
    e. Description of the actual problem or issue
    f. Date and time that problem was corrected
    g. Technician's ID

Data shall be provided in a Pivot table format so that common problems/issues can be more easily identified, per agreement with Agency. JOET's EV-ChART may address these reporting requirements, and as directed by Agency, may be substituted for the reporting requirements stated in this section.

5. **Station Siting:** Contractor must be able to demonstrate to ODOT that it has the legal authority to develop, operate, and maintain the charging station(s), in compliance with all requirements identified in section II, *Requirements for Operation,* for a minimum of a five-year period after EV charger commissioning at each selected site. ODOT retains the authority to approve or deny any proposed site.

EV Driver Operational Status Communication and Pricing Transparency Requirements

The Operator of DCFC EV charging stations must ensure:

5. **Operational Status Communication**: Operator shall effectively communicate to EV drivers as they are using a charging station and searching for a charging station regarding when an EV charging station is not working. Communication shall be via a mobile app, text alerts, or other similar technology. At a minimum, all EV charging stations are required to display real-time operational status on a smartphone application, either through a network-specific application or a third-party aggregator.
6. **Pricing Transparency:** It is expected that EV drivers using these charging stations are offered fair, competitive and reasonable rates. The following pricing information shall be available to drivers in advance of each charging session – through a user interface that is legible both at night and in direct sunlight, or through another form of display at or on the charging station, and via mobile app:
    a. the unit of sale (per kWh);
    b. pricing per unit of sale;
    c. any additional fees that may be assessed (e.g., parking fees, dwell time fees); and
    d. Maximum power level of the EVSE (when not sharing power) in kilowatts.

Interoperability, Universal Roaming, and Vehicle Grid Integration

The Operator of DCFC EV charging stations must ensure:

7. **Interoperability - Ability to change network service providers without having to replace charging equipment:** All EV charging stations must be networked and compliant with Open Charge Point Protocol (OCPP) 1.6J (or newer) requirements, and must be capable of switching networks without technological, contractual, or other unreasonable restrictions. (Systems that are OCPP compliant only at the network level are not permitted). By February 28th, 2024, chargers must conform to OCPP 2.0.1.
8. **Capability for universal roaming:** To enable universal roaming on all networked DCFC EV charging stations, all DCFC EVSE charging equipment must be in compliance with the Open Charge Point Interface communications protocol, to enable the back-end network to have the ability to exchange consumer billing data information with other networks. Operator must enable customers to seamlessly access charging stations, regardless of network or vendor, without the need for multiple cards/memberships. By February 28th, 2024, charging networks must be capable of communicating with other charging networks in accordance with OCPI 2.2.1.
9. **Managed Charging Capability and Vehicle Grid Integration:** To enable managed charging and utility-directed demand response programs, the Operator must ensure that network service providers supporting DCFC EV charging stations must be compliant with OpenADR 2.0, a common platform that utilities utilize for demand response programs, or similar mechanism.

Required elements of National Institute of Standards and Technology, Handbook 44, Specifications, Tolerances, and other Technical Requirements for Weighing and Measuring Devices (NIST Handbook 44), Section 3.40. Electric Vehicle Fueling Systems

The Operator of DCFC EV charging stations must comply with the following NIST Handbook 44 provisions:

10. **Identification and Marking:** The following identification and marking requirements must be met:
    a. The marking information requires that identification shall appear as follows:
        i. Within 60 cm (24 inches) to 150 cm (60 inches) from ground level; and
        ii. On a portion of the DCFC EVSE that cannot be readily removed or interchanged (e.g., not on a service access panel).
    b. Each DCFC EVSE shall have the following information conspicuously, legibly, and indelibly marked:
        i. Voltage rating;
        ii. Maximum current deliverable;
        iii. Type of current (AC or DC or, if capable of both, both shall be listed);
        iv. Minimum Measured Quantity (MMQ); and
        v. Temperature limits, if narrower than and within -40 degrees Celsius to + 85 degrees Celsius (- 40 degrees Fahrenheit to +185 degrees Fahrenheit).

c. The following abbreviations or symbols may appear on a DCFC EVSE charging system:
    i. VAC = volts alternating current;
    ii. VDC = volts direct current;
    iii. MDA = maximum deliverable amperes;
    iv. J = joule.

11. **Totalizers for DCFC EVSE charging systems:** DCFC EVSE charging stations shall be designed with a non-resettable totalizer for the quantity delivered through each separate measuring device. Totalizer information shall be adequately protected and unalterable. Totalizer information shall be provided by the system and readily available on site or via on site internet access.
12. **Minimum Measured Quantity (MMQ):** The minimum measured quantity shall satisfy the conditions and use of the measuring system as follows:
    a. Measuring systems shall have a minimum measured quantity not exceeding 2.5 megajoule (MJ) or 0.5 kilowatt-hours (kWh).

Reporting Requirements

The Operator of DCFC EV charging stations must comply with reporting requirements, for a period of at least five (5) years following the commissioning of all EV charging equipment that is upgraded and installed under the Contract. The Joint Office is developing a reporting mechanism called EV-ChART, and ODOT will require the following data reporting requirements be submitted to EV-ChART. EV-ChART will be operational by Spring of 2024. To monitor reliability, ODOT may request that data be submitted more frequently than is indicated below.

13. **Reporting to the National Renewable Energy Laboratory (NREL) Alternative Fuels Data Center**: The Alternative Fuels Data Center (AFDC) is a resource of the U.S. Department of Energy (DOE) Vehicle Technologies Office (VTO). The AFDC provides tools and resources to aid transportation decision makers, including the Electric Vehicle Charging Station Locator, which holds information on EV charging station locations in the United States and Canada. The Joint Office of Energy and Transportation may establish and manage a national database and analytics platform that provides an additional data source. As long as the AFDC is operational, Operator will be required to report to the AFDC; if the Joint Office's database becomes a successor to the AFDC, Operator shall report to it. If both AFDC and Joint Office maintain databases, Operator shall be required to report to both. The Operator will be required to send EV charging station location information to the AFDC monthly, along with other useful information (which can be shared initially, and only updated as needed). Specifically, information to be shared with the AFDC shall include: Charging station name and Station ID (if any); Manufacturer of the DCFC EVSE, along with model names, model numbers and serial numbers; Charging Station address; Geographic coordinates of the station (e.g., latitude and longitude); Phone number to call if user has problems at a station; Access type (public); Access days/times (hours of public operation for the station); Payment methods; Operator, that is, the network service provider for each station; Nature of the composition of pricing charges and unit of measurement for pricing (e.g., $/kWh, other fees such as a parking fee or demand response pricing options); Date charging station is upgraded or commissioned and open for operation; Date a charging station is decommissioned; Power sharing capabilities among ports; Port classification level (which indicates the rate of the battery refuel, e.g., DC Fast Charger (23kW+); Connectors on each DCFC EVSE (e.g., SAE CCS-1, CHAdeMO, NACS). An Application Programming Interface with AFDC can be established to port over information every 12 – 24 hours.
14. **Quarterly Data Submittal:** States and other direct recipients must ensure the following data are submitted on a quarterly basis in a manner prescribed by the FHWA. Any quarterly data made public will be aggregated and anonymized to protect confidential business information.
    i. Charging station identifier that the following data can be associated with. This must be the same charging station name or identifier used to identify the charging station in data made available to third parties in § 680.116(c)(1);
    ii. Charging port identifier. This must be the same charging port identifier used to identify the charging port in data made available to third parties in § 680.116(c)(8)(ii);
    iii. Charging session start time, end time, and any error codes assoc. with an unsuccessful charging session by port;
    iv. Energy (kWh) dispensed to EVs per charging session by port;
    v. Peak session power (kW) by port;
    vi. Payment method associated with each charging session;
    vii. Charging station port uptime, T-Outage, and T-Excluded calculated in accordance with the equation in section 22 for each of the previous 3 months;
    viii. Duration (minutes) of each outage
15. **Annual Data Submittal**: Beginning in 2024, States and other direct recipients must ensure the following data are submitted on an annual basis, on or before March 1, in a manner prescribed by FHWA. Any annual data made public will be aggregated and anonymized to protect confidential business information.
    i. Maintenance and repair cost per charging station for the previous year.

ii. For private entities identified in paragraph(c)(1) of this section, identification of and participation in any State or local business opportunity certification programs including but not limited to minority-owned business, Veteran-owned businesses, woman-owned businesses, and businesses owned by economically disadvantaged individuals

16. **<u>One Time Data Submittal</u>:** This paragraph applies only to both the NEVI Formula Program projects and grants awarded under 23 U.S.C. 151(f) for projects that are for EV charging stations located along and designed to serve the users of designated AFCs. Beginning in 2024, States and other direct recipients must ensure the following data are collected and submitted once for each charging station, on or before March 1 of each year, in a manner prescribed by the FHWA. Any one-time data made public will be aggregated and anonymized to protect confidential business information.
    i. The name and address of the private entity(ies) involved in the operation and maintenance of chargers.
    ii. Distributed energy resource installed capacity, in kW or kWh as appropriate, of asset by type (e.g., stationary battery, solar, etc.) per charging station; and
    iii. Charging station real property acquisition cost, charging equipment acquisition and installation cost, and distributed energy resource acquisition and installation cost; and
    iv. Aggregate grid connection and upgrade costs paid to the electric utility as part of the project, separated into:
        a. Total distribution and system costs, such as extensions to overhead/underground lines, and upgrades from single-phase to three-phase lines; and
        b. Total service costs, such as the cost of including poles, transformers, meters, and on-service connection equipment.
17. **Third Party Data Sharing:** States or other direct recipients (i.e., Proposer) must ensure that the following data fields are made available, free of charge, to third-party software developers, via application programming interface:
    i. Unique charging station name or identifier;
    ii. Address (street address, city, State, and zip code) of the property where the charging station is located;
    iii. Geographic coordinates in decimal degrees of exact charging station location;
    iv. Charging station operator name;
    v. Charging network provider name;
    vi. Charging station status (operational, under construction, planned, or decommissioned);
    vii. Charging station access information;
        a. Charging station access type (public or limited to commercial vehicles);
        b. Charging station access days/times (hours of operation for the charging station);
    viii. Charging port information:
        a. Number of charging ports;
        b. Unique port identifier;
        c. Connector types available by port;
        d. Charging level by port (DCFC, AC Level 2, etc.);
        e. Power delivery rating in kilowatts by port;
        f. Accessibility by vehicle with trailer (pull-through stall) by port (yes/no);
        g. Real-time status by port in terms defined by Open Charge Point Interface 2.2.1
    ix. Pricing and payment information
        a. Pricing structure;
        b. Real-time price to charge at each charging port, in terms defined by Open Charge Point Interface 2.2.1; and
        c. Payment methods accepted at charging station.
18. **<u>Charging Port Uptime and Formula:</u>** States or other direct recipients (i.e., Proposer) must ensure that each charging port has an average annual uptime of greater than 97%. A charging port is considered "up" when its hardware and software are both online and available for use, or in use, and the charging port successfully dispenses electricity in accordance with requirements for minimum power level defined in section 21 of "Interoperability, Universal Roaming, and Vehicle Grid Integration."
    i. Charging port uptime must be calculated on a monthly basis for the previous twelve months.
    ii. Charging port uptime percentage must be calculated using the following equation:
        a. $\mu = ((525{,}600 - (T\text{-}Outage - T\text{-}Excluded)) / 525{,}600) \times 100$, where:
        b. μ = port uptime percentage,
        c. T-Outage = total minutes of outage in previous year, and
        d. T-Excluded = total minutes of outage in previous year caused by the following reasons outside the charging station operator's control, provided that the charging station operator can demonstrate that the charging port would otherwise be operational: electric utility service interruptions, failure to charge or meet the EV charging customer's expectation for power delivery due to the fault of the vehicle, scheduled maintenance, vandalism,

or natural disasters. Also excluded are hours outside of the identified hours of operation of the charging station as applicable.

Title 23 Requirements:

Use of Program Income:

i. Any net income from revenue from the sale, use, lease, or lease renewal of real property acquired shall be used for Title 23, United States Code, eligible projects.

ii. For purposes of program income or revenue earned from the operation of an EV charging station, the State or other direct recipient (I.e., Proposer) should ensure that all revenues received from operation of the EV charging facility are used only for:

iii. Debt service with respect to the EV charging station project, including funding of reasonable reserves and debt service on refinancing;

a. A reasonable return on investment of any private person financing the EV charging station project, as determined by Agency, in consultation with Proposer; ;

b. Any costs necessary for the improvement and proper operation and maintenance of the EV charging station, including reconstruction, resurfacing, restoration, and rehabilitation;

c. If the EV charging station is subject to a public-private partnership agreement, payments that the party holding the right to the revenues owes to the other party under the public-private partnership agreement; and

d. Any other purpose for which Federal funds may be obligated under Title 23, United States Code.

Other Title 23 Requirements:

Proposers are advised that the following Title 23 regulations apply for the development of NEVI charging stations:

i. Chapter 1 of Title 23; (Federal Aid Highways)
ii. 23 CFR 635.109; (Standardized changed condition clauses)
ii. 23 CFR 680.104; (Definitions)
iii. 23 CFR 680.106(b); (Number of charging ports)
iv. 23 CFR 680.106(c); (connector type)
v. 23 CFR 680.106(d); (Power level)
vi. 23 CFR 680.106(e); (Availability)
vii. 23 CFR 680.106(f); (Payment methods)
viii. 23 CFR 680.106(g); (Equipment certification)
ix. 23 CFR 680.106(h); (Security)
x. 23 CFR 680.106(i); (Long-term stewardship)
xi. 23 CFR 680.106(j); (Qualified technicians)
xi. 23 CFR 680.106(k); (Customer service)
xii. 23 CFR 680.106(l); (Customer data privacy)
xiii. 23 CFR 680.108; (Interoperability of electric vehicle charging infrastructure)
xiv. 23 CFR 680.110; (Traffic control devices or on-premises signs acquired, installed, or operated)
xv. 23 CFR 680.114; (Charging network connectivity of electric vehicle charging infrastructure)
xvi. 23 CFR 680.116; (information on publicly available EV charging infrastructure locations, pricing, real time availability, and accessibility through mapping)
xvii. 23 CFR 635.410 (Buy America requirements)
xviii. 23 CFR 635.112(f) (Non-collusion provision)
xix. 23 CFR 230 Subpart A, Appendix B to subpart A of Part 230 (On-the-Job training provisions)
xx. 23 CFR 635.109 (Standardized changed conditions contract clauses)
xxi. 23 CFR 633.102 (FHWA Required Contract Provisions)
xxii. 2 CFR Part 200 Appendix II(A) (Sanctions and penalties for breach of contract)
xxiii. 2 CFR Part 200 Appendix II (B) (Termination for Cause and Convenience)
xxiv. 2 CFR Part 200 Appendix II (D) and 23 CFR 635.309(f) 29 CFR 1, 3, 5 (Davis Bacon Act (Prevailing wage rate requirements))
xxv. 2 CFR Part 200 Appendix II (F) 37 CFR Â§401 (Rights to inventions made under a contract agreement)
xxvi. 2 CFR Part 200 Appendix II (G) (Clean Air Act/Federal Water Pollution Control)
xxvii. 2 CFR Part 200 Appendix II (H) (Energy Efficiency)
xxviii. 2 CFR Part 200 Appendix II (I) 2 CFR 180 (Debarment and Suspension)
xxix. 2 CFR Part 200 Appendix II (J) (Byrd Anti-Lobbying Amendment)
xxx. 2 CFR Part 200 Appendix II (K) 2 CFR 200.322 40 CFR Part 247 (Procurement of Recovered Materials)

In addition to the above Title 23 requirements, the following requirements also apply: Equal Opportunity requirements (Title VI of the Civil Rights Act of 1964, as amended and Title 49 Code of Federal Regulations Part 26, as amended, regarding DBEs).

PBOT
PORTLAND BUREAU OF TRANSPORTATION

1120 SW Fifth Ave, Suite 1331, Portland OR 97204
Phone: 503-823-4000 Portland.gov/Transportation

Mingus Mapps Commissioner **Millicent Williams** Director

November 13, 2023

U.S. Department of Transportation
1200 New Jersey Avenue SE
Washington DC 20590

To the U.S. Department of Transportation,

Portland, Oregon, is internationally recognized as a forward-thinking leader in promoting sustainable transportation options.

In 2011, we became the first U.S. city to have a direct current fast charger (DCFC) electric vehicle (EV) charging pod in the public right-of-way. Since then, we have supported the expansion of EV chargers on public and private land. We have supported a pilot program in partnership with one of our local investor-owned utilities, Portland General Electric, to install EV chargers on utility poles and will soon be expanding opportunities for other companies to install EV chargers in the right-of-way through a new project. We also supported the first-of-its-kind "Electric Island" heavy-duty freight charging facility built in partnership with Portland General Electric and Daimler Trucks North America and will continue to prioritize the transition to clean freight.

Portland was recently awarded a $3.5 million grant from the U.S. Department of Energy grant to further expand public charging opportunities, with a focus on creating an equitably distributed network of convenient, reliable, and affordable public chargers.

Although much of Portland's recent work has focused on installing new charging infrastructure, these efforts will be undermined if a significant number of EV chargers are in a state of disrepair. EV charger reliability plays a critical role in the successful adoption of electric vehicles. The Oregon Department of Energy's 2023 Biennial Zero Emission Vehicle Report identified the availability and reliability of chargers as one of the biggest barriers to wider EV adoption in Oregon. In fact, the US Department of Energy Alternative Fuel Data Center Station Locator found a total of 117 stations listed as temporarily unavailable in Oregon, with a total of 202 ports.

While this is an important statewide issue, thirty-seven (37) of those temporarily unavailable charging stations, which support a total of seventy-three (73) ports, are located within the city of Portland. With over thirty-six percent (36%) of the state's unavailable ports in Portland, it is particularly important to ensure that public chargers are reliable and well-maintained for residents and visitors to Oregon's most populus city. Furthermore, it's imperative to address

EVSE disrepair because many Portlanders do not have access to home charging and must completely rely on public infrastructure to fuel their electric vehicles.

We are writing this letter to convey the Portland Bureau of Transportation's (PBOT) strong support for the Oregon Department of Transportation's (ODOT) application to the Electric Vehicle Charger Reliability and Accessibility Accelerator, and to state our intent to work in close partnership with ODOT on projects within the City of Portland. Staff at PBOT and ODOT have a long history of working together on transportation projects in the City of Portland and have experience coordinating and collaborating on transportation electrification projects, including Round 6 Alternative Fuel Corridor designations and the state's National Electric Vehicle Infrastructure (NEVI) plan.

The City of Portland strongly encourages the U.S. Department of Transportation to support this important proposal and thanks you for your consideration.

Sincerely,

Millicent Williams
Director
Portland Bureau of Transportation

Appendix G – Organizational Information

Notice of Funding Opportunity Number 693JJ324NF00001

Section D – Applications and Submissions Information; Organizational Information

In addition to the forms, provide answers to the following organizational information questions in a pdf format:

Question 1: Identify any exceptions to the anticipated award terms and conditions as contained in Section F, Federal Award Administration Information. Identify any preexisting intellectual property that you anticipate using during award performance, and your position on its data rights during and after the award period of performance.

Answer: The Oregon Department of Transportation does not anticipate any exceptions to award terms and does not anticipate use of any preexisting intellectual property.

Question 2: The use of a Unique Entity Identifier (UEI) is required on all applications for Federal grants. Please provide your organization's UEI in your budget application. See guidance on obtaining a UEI at SAM.gov | Home.

Answer: The Oregon Department of Transport's UEI (SAM) is XKMMGCKGMQC8

Question 3: A statement to indicate whether your organization has previously completed a Single Audit and, if so, the date that the last Single Audit in accordance with 2 CFR 200 Subpart F, Audit Requirements was completed.

Answer: Please see the first PDF attached below with the program name Highway Planning and Construction Cluster, the Oregon Department of Transportation's completed Single Audit in accordance with 2 CFR 200 Subpart F, Audit Requirements.

Question 4: A statement regarding conflicts of interest. The applicant must disclose in writing any actual or potential personal or organizational conflict of interest in its application that describes in a concise manner all past, present, or planned organizational, contractual, or other interest(s), which may affect the applicant's ability to perform the proposed project in an impartial and objective manner. Actual or potential conflicts of interest may include but are not limited to any past, present, or planned contractual, financial, or other relationships, obligations, commitments, or responsibilities, which may bias the applicant or affect the applicant's ability to perform the agreement in an impartial and objective manner. The Agreement Officer (AO) will review the statement(s) and may require additional relevant information from the applicant. All such information, and any other relevant information known to FHWA will be used to determine whether an award to the applicant may create an actual or potential conflict of interest. If any such conflict of interest is found to exist, the AO may (a) disqualify the applicant, or (b) determine that it is otherwise in the best interest of the United States to contract with the applicant and include appropriate provisions to mitigate such conflict in the agreement pursuant to 2 CFR 200.112.

Answer: The Oregon Department of Transportation (ODOT) believes there are no current or potential organizational or staffing conflict of interest exist; however, if any undertaking of awarded grant funding may result or be viewed as organizational or a staff member conflict of interest, ODOT will take all mitigation measures as may be necessary in order to avoid such conflict of interest pursuant to 2 CFR 200.112.

Question 5: A statement to indicate whether a Federal or State organization has audited or reviewed the applicant's accounting system, purchasing system, and/or property control system. If such systems have been reviewed, provide summary information of the audit/review results to include as applicable summary letter or agreement, date of audit/review, Federal or State point of contact for such review.

Answer: Please see the attached PDF files below, including an audit labeled with the program name *Coronavirus State and Local Recovery Fund* and a summary review letter labeled as *Memorandum* which includes the requested information.

Question 6: Terminated Contracts – List any contract/agreement that was terminated for convenience of the Government within the past 3 years, and any contract/agreement that was terminated for default within the past 5 years. Briefly explain the circumstances in each instance.

Answer: The Oregon Department of Transportation has no record of any contracts or agreements for EV charging infrastructure that were terminated for convenience of the Government in the last 3 years, nor any contracts or agreements that were terminated for default in the past 5 years.

Question 7: The applicant is directed to review 2 CFR §170 dated September 14, 2010, and Appendix A thereto, and acknowledge in its application that it understands the requirement, has the necessary processes and systems in place, and is prepared to fully comply with the reporting described in the term if it receives funding resulting from this NOFO. The text of Appendix A will be incorporated in the award document as a General Term and Condition as referenced under this NOFO's Section F, Federal Award Administration Information.

Answer: The Oregon Department of Transportation has reviewed 2 CFR §170 dated September 14, 2010 and Appendix A thereto, and acknowledges in its application that it understands the requirement, has the necessary processes and systems in place, and is fully prepared to comply with the reporting described if it receives funding resulting from this NOFO.

Question 8: Disclose any violations of Federal criminal law involving fraud, bribery, or gratuity violations. Failure to make required disclosures can result in any of the remedies described in 2 CFR 200.339 entitled Remedies for Noncompliance, including suspension or debarment. (See also 2 CFR Part 180 and 31 U.S.C. 3321).

Answer: None. ODOT has no violations of Federal criminal law involving fraud, bribery, or gratuity violations.

Shemia Fagan Secretary of State
Cheryl Myers Deputy Secretary of State, Tribal Liaison
Kip Memmott Audits Director

May 2, 2023

Kristopher Strickler, Director
Oregon Department of Transportation
355 Capital St NE, MS #11
Salem, Oregon 97301

Dear Director Strickler:

We have completed audit work of selected federal programs at the Oregon Department of Transportation (department) for the year ended June 30, 2022.

Assistance Listing Number	Program Name	Audit Amount
20.205, 20.219, 20.224	Highway Planning and Construction Cluster	$ 633,144,336

This audit work was not a comprehensive audit of your federal program. We performed this federal compliance audit as part of our annual Statewide Single Audit. The Single Audit is a very specific and discrete set of tests to determine compliance with federal funding requirements, and does not conclude on general efficiency, effectiveness, or state-specific compliance. The Office of Management and Budget (OMB) Compliance Supplement identifies internal control and compliance requirements for federal programs. Auditors review and test internal controls over compliance for all federal programs selected for audit and perform specific audit procedures only for those compliance requirements that could have a direct and material effect on the federal program under audit.

We are required to be independent of the department and to meet our other ethical responsibilities, in accordance with relevant ethical requirements relating to our audit. Our audit does not provide a legal determination of the department's compliance with the compliance requirements referred to in Attachment A.

For the year ended June 30, 2022, we determined whether the department substantially complied with the compliance requirements listed in Attachment A as relevant to the federal program under audit.

Responsibilities of Management for Compliance

Department management is responsible for compliance with the requirements referred to in Attachment A and for the design, implementation, and maintenance of effective internal control over compliance with the requirements of laws, statutes, regulations, rules, and provisions of contracts or grant agreements applicable to the types of compliance requirements referred to above.

Auditor's Responsibilities for the Audit of Compliance

Our objectives are to obtain reasonable assurance about whether material noncompliance with the compliance requirements referred to above occurred, whether due to fraud or error, and express an opinion on the department's compliance based on our audit work. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS, *Government Auditing Standards*, and the Uniform Guidance will always detect material noncompliance when it exists. The risk of not detecting material noncompliance resulting from fraud is higher than for that resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Noncompliance with the compliance requirement referred to above is considered material, if there is a substantial likelihood that, individually or in the aggregate, it would influence the judgement made by a reasonable user of the report on compliance about the department's compliance with the federal program.

In performing an audit in accordance with GAAS, *Government Auditing Standards*, and the Uniform Guidance, we

- exercise professional judgment and maintain professional skepticism throughout the audit.
- identify and assess the risks of material noncompliance, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the department's compliance with the compliance requirements referred to above and performing such other procedures as we considered necessary in the circumstances.
- obtain an understanding of the department's internal control over compliance relevant to the audit in order to design audit procedures that are appropriate in the circumstances and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of department's internal control over compliance. Accordingly, no such opinion is expressed.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and any significant deficiencies and material weaknesses in internal control over compliance that we identified during the audit.

Noncompliance

The results of our auditing procedures disclosed noncompliance which is required to be reported in accordance with the Uniform Guidance and is described below. Our opinion on the federal program is not modified with respect to this matter.

Internal Control Over Compliance

Our consideration of internal control over compliance was for the limited purpose described in the Auditor's Responsibilities for the Audit of Compliance section above and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies in internal control over compliance and therefore, material weaknesses or significant deficiencies may exist that were not identified. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, as discussed below, we

identified certain deficiencies in internal control over compliance that we consider to be significant deficiencies.

A *deficiency in internal control over compliance* exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A *material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance. We consider the deficiencies in internal control over compliance described below to be significant deficiencies.

Our audit was not designed for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, no such opinion is expressed.

Audit Findings and Recommendations

Management should ensure timely review of transfers is documented

Federal Awarding Agency:	Department of Transportation, Federal Highway Administration
Assistance Listing Number and Name:	20.205, Highway Planning and Construction
Federal Award Numbers and Years:	Various
Compliance Requirements:	Activities Allowed or Unallowed; Allowable Costs/Cost Principles
Type of Finding:	Significant Deficiency
Prior Year Finding:	N/A
Questioned Costs:	N/A

Criteria: 2 CFR 200.303; GAO-17-704G ¶10.03, 12.05; ODOT FASM 3.7

The department is responsible for establishing and maintaining internal controls to ensure entries posted in the accounting records are for costs and activities allowable under the federal program. Journal entry review and approval should be clearly documented and readily available for examination. The department has established Financial Administration Standard 3.7, Expenditure Journal Entries, which requires management to transmit signed hard copy supporting documentation of journal entries to financial services after they've been reviewed and approved.

We tested 40 transfer journal entries moving costs between federal project sub jobs and found that 19 did not have documentation of timely approval. In two cases, approval was documented more than a year after costs were transferred. The 19 entries were all lump sum transfers processed by Program and Funding Services (P&FS).

P&FS is authorized to process transfers, moving costs between sub jobs of the same project. These transfers are necessary to align project costs with the appropriate funding source. Per P&FS management, transfers are generally reviewed within a few days. However, documentation of the review has not been occurring until much later due to challenges associated with remote work and policies requiring hard copy documentation.

Over $90 million in program costs were transferred between sub jobs in this manner during fiscal year 2022. Without timely review and documentation available to support transfers, unallowable costs or activities could be transferred and billed erroneously to the Federal government.

We recommend management ensure procedures for review of transfer journal entries result in timely documented approvals.

Consistency needed when providing required federal award information to subrecipients

Federal Awarding Agency:	Department of Transportation, Federal Highway Administration
Assistance Listing Number and Name:	20.205, Highway Planning and Construction
Federal Award Numbers and Years:	Various
Compliance Requirements:	Subrecipient Monitoring
Type of Finding:	Significant Deficiency, Noncompliance
Prior Year Finding:	N/A
Questioned Costs:	N/A

Criteria: 2 CFR 200.332(a)(1)

Federal regulations require pass-through entities to ensure every subaward is clearly identified to the subrecipient as a subaward and includes certain required information.

We examined 17 subrecipient awards to ensure the information required under 2 CFR 200.332(a)(1) was communicated at the time of the subaward. Each award examined was missing one or more of the required elements:

- 15 samples did not include the subrecipient's Unique Entity Identifier or DUNS number;
- 7 samples did not provide the Federal Award Identification Number (FAIN);
- 5 samples did not provide the Federal Award date; and
- 1 sample did not provide the correct assistance listing number.

The required award information is necessary for the subrecipient to accurately report the subaward information in its accounting records and on the schedule of expenditure of federal awards.

Procedures to communicate award information are not consistently followed across the department and as a result do not ensure that all the required award information is communicated. Specifically, some required information is included in the Federal Project Agreement from the Federal Management Information System (FMIS), but not all managers were aware it needed to be provided. In many cases an exhibit was included with the agreement that could have provided all the required information, but the exhibit was not completed.

We recommend the department adopt procedures for preparing subaward agreements that ensure all required information is provided to subrecipients at the time of the subaward.

Response to Current Year Findings

The audit findings and recommendations above, along with your responses, will be included in our Statewide Single Audit Report for the fiscal year ended June 30, 2022. Including your responses satisfies the federal requirement that management prepare a Corrective Action Plan covering all reported audit findings. Satisfying the federal requirement in this manner, however, can only be accomplished if the response to each significant deficiency or material weakness includes the information specified by the federal requirement, and only if the responses are received in time to be included in the audit report. The following information is required for each response:

1. Your agreement or disagreement with the finding. If you do not agree with an audit finding or believe corrective action is not required, include in your response an explanation and specific reasons for your position.
2. The corrective action planned for each audit finding.
3. The anticipated completion date.
4. The contact person(s) responsible for corrective action.

Please provide a response to Amy John by Friday, May 12, 2023, and provide Rob Hamilton, Statewide Accounting and Reporting Services (SARS) Manager, a copy of your Corrective Action Plan.

The purpose of this communication is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this communication is not suitable for any other purpose.

We appreciate your staff's assistance and cooperation during this audit. Should you have any questions, please contact Tracey Gates or Amy John at (503) 986-2255.

Sincerely,

Office of the Secretary of State, Audits Division

State of Oregon

cc: Tracy Wroblewski, Chief Financial Officer
Marlene Hartinger, Chief Auditor
Richard Brock, Interim Financial Policy and Compliance Manager
Jeff Flowers, Statewide Investment Management Section Manager
Oregon Transportation Commission
Berri Leslie, Interim Director, Department of Administrative Services
Rob Hamilton, SARS Manager, Department of Administrative Services

Compliance Requirement	General Summary of Audit Procedures Performed
Activities Allowed or Unallowed	Determined whether federal awards were expended only for allowable activities.
Allowable Costs/Cost Principles	Determined whether charges to federal awards were for allowable costs and that indirect costs were appropriately allocated.
Procurement/ Suspension and Debarment	Determined whether procurements were made in compliance with state procurement requirements and verified that contractors were not suspended, debarred, or otherwise excluded from receiving federal funds.
Subrecipient Monitoring	Determined whether the state agency monitored subrecipient activities to provide reasonable assurance that the subrecipient administered federal awards in compliance with federal requirements.
Special Tests and Provisions	Determined whether the department complied with the additional federal requirements identified in the OMB Compliance Supplement.

Shemia Fagan Secretary of State
Cheryl Myers Deputy Secretary of State, Tribal Liaison
Kip Memmott Audits Director

May 2, 2023

Kris Strickler, Director
Oregon Department of Transportation
355 Capitol Street NE, MS 11
Salem, Oregon 97301

Dear Director Strickler:

We have completed audit work of a selected federal program at the Oregon Department of Transportation (department) for the year ended June 30, 2022.

Assistance Listing Number	Program Name	Audit Amount
21.027	Coronavirus State and Local Discal Recovery Fund	$ 85,000,000

For the year ended June 30, 2022, we performed procedures to determine whether the department substantially complied with the following compliance requirements relevant to the federal program under audit. Based on the audit procedures performed, we did not identify any reportable findings.

This audit work was not a comprehensive audit of your federal program. We performed this federal compliance audit as part of our annual Statewide Single Audit, a very specific and discrete set of tests to determine compliance with federal funding requirements, and does not conclude on general efficiency, effectiveness, or state-specific compliance. The Office of Management and Budget (OMB) Compliance Supplement identifies internal control and compliance requirements for federal programs. Auditors review and test internal controls over compliance for all federal programs selected for audit and perform specific audit procedures only for those compliance requirements that could have a direct and material effect on the federal program under audit.

We are required to be independent of the department and to meet our other ethical responsibilities, in accordance with relevant ethical requirements relating to our audit. Our audit does not provide a legal determination of the department's compliance with the compliance requirements referred to in Attachment A.

Responsibilities of Management for Compliance

Department management is responsible for compliance with the requirements referred to in Attachment A and for the design, implementation, and maintenance of effective internal control over compliance with the requirements of laws, statutes, regulations, rules, and provisions of contracts or grant agreements applicable to the types of compliance requirements referred to above.

Auditor's Responsibilities

Our objectives are to obtain reasonable assurance about whether material noncompliance with the compliance requirements referred to above occurred, whether due to fraud or error, and express an opinion on the department's compliance based on our audit work. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS, *Government Auditing Standards*, and the Uniform Guidance will always detect material noncompliance when it exists.

In performing an audit in accordance with GAAS, *Government Auditing Standards*, and the Uniform Guidance, we

- exercise professional judgment and maintain professional skepticism throughout the audit.
- identify and assess the risks of material noncompliance, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the department's compliance with the compliance requirements referred to above and performing such other procedures as we considered necessary in the circumstances.
- obtain an understanding of the department's internal control over compliance relevant to the audit in order to design audit procedures that are appropriate in the circumstances and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of department's internal control over compliance. Accordingly, no such opinion is expressed.

Our consideration of internal control over compliance was for the limited purpose described in the preceding paragraph and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses, as defined above. However, material weaknesses or significant deficiencies in internal control over compliance may exist that have not been identified.

Our audit was not designed for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, no such opinion is expressed.

The purpose of this communication is solely for the information and use of management and others within the organization to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this communication is not suitable for any other purpose.

We appreciate your staff's assistance and cooperation during this audit. Should you have any questions, please contact Kari Mott or Sarah Anderson at kari.e.mott@sos.oregon.gov or sarah.a.anderson@sos.oregon.gov, respectively.

Sincerely,

Office of the Secretary of State, Audits Division

cc: Tracey Wroblewski, Chief Financial Officer
Travis Brouwer, Assistant Director, Revenue, Finance and Compliance
Marlene Hartinger, Chief Auditor
Richard Brock, Policy and Compliance Manager
Berri Leslie, Interim Director, Department of Administrative Services
Rob Hamilton, SARS Manager, Department of Administrative Services

Compliance Requirement	General Summary of Audit Procedures Performed
Activities Allowed or Unallowed	Determined whether federal awards were expended only for allowable activities.
Allowable Costs/Cost Principles	Determined whether charges to federal awards were for allowable costs and that indirect costs were appropriately allocated.
Reporting	Verified the department submitted financial and performance reports to the federal government in accordance with the grant agreement and that those financial reports were supported by the accounting records.

Office of the Secretary of State

Shemia Fagan
Secretary of State

Cheryl Myers, Tribal Liaison
Deputy Secretary of State

Audits Division

Kip R. Memmott, MA, CGAP, CRMA
Director

255 Capitol St. NE, Suite 500
Salem, OR 97310

503-986-2255

M E M O R A N D U M

To: Oregon Audits Division (OAD) Statewide Financial Audit Team
CC: Oregon Department of Transportation

From: OAD Information Technology (IT) Audit Team

Date: March 30, 2022

Subject: TEAMS IT Application Controls Review

Objectives, Scope and Methodology

In preparation for the FY2022 statewide financial audit of the Oregon Department of Transportation (ODOT), we performed audit procedures over controls related to the Transportation Environment Accounting and Management System (TEAMS). Based on when data was obtained, our procedures covered different time periods:

- For TEAMS transaction data, we used data processed from July 1, 2020 through October 21, 2021.
- For TEAMS logical access, we used some downloads from October 2021 but primarily reviewed access rights as of December 28, 2021.
- Our review of changes to TEAMS was restricted to the period of July 1, 2021 through January 10, 2022.

Our objectives were to determine whether information system controls governing ODOT's TEAMS application provide reasonable assurance that:

1. Transactions remain complete, accurate and valid during application input, processing and output.
2. Changes to computer code are managed to ensure integrity of the system and data.
3. The system is protected against unauthorized use, modification, disclosure, damage or loss.

For objective 1, our scope was restricted to input, processing and output of financial transactions affecting the accounts typically audited during the statewide financial audit. It also covered interfaces to and from TEAMS, including financial transactions and security-related interfaces, such as Workday. We also reviewed procedures to modify TEAMS tables used for application processing.

For objective 2, we reviewed change management procedures specifically for TEAMS code and changes made to TEAMS code from July 2021 through January 2022. Our scope also included a review of logical access to program libraries.

For objective 3, we focused on logical access controls specific to the TEAMS application itself. This included user account management specific to provisioning TEAMS access and controls over modification of the TEAMS security structure, such as modification of user security classes. It also considered whether separation of duties was being maintained. Our procedures included testing of the TEAMS-specific six-month periodic review of access, evaluating whether access granted was properly requested through and documented in the TEAMS Security Request System, and evaluating whether access granted met segregation of duties requirements and was used.

Objective 1 - TEAMS application controls were largely unchanged from prior years and judged sufficient, but table maintenance procedures could be improved

Effective application controls include both manual and automated processes to ensure only complete, accurate and valid information is entered into a computer system; data integrity is maintained during processing; and system outputs conform to anticipated results. Controls should also be in place to timely detect and correct errors that may occur during transaction input and processing.

ODOT has implemented a variety of manual and automated application controls to ensure TEAMS processes transactions correctly and outputs occur as intended. We identified and tested several of the automated controls during our previous audit in 2012 and found them to be effective. During our current review, we identified that the key automated controls around these areas had not changed significantly since our prior audit. Based on this assessment, high-level review of selected data, and review of the audit procedures performed by financial auditors of other automated and manual controls, we did not conduct extensive testing in this area.

Based on our review, key manual and automated controls include:

- Manual procedures – defined in the Financial Administration and Standards Manual (FASM) – to review and approve expenditure and revenue refund input documents prior to entry into TEAMS to ensure payment transactions are approved.
- Automated routines require transactions that generate a payment to be entered by one user and released by another before final processing to ensure input matches source documents.
- Manual procedures to review and approve revenue input documents for motor fuels tax, vehicle registration taxes, weight mile taxes, and transportation licenses and fees.
- The ability to enter revenues and expenditures is restricted through logical access permissions to TEAMS to protect access to sensitive transactions.
- System edits validate input data to ensure they conform to required formats and are validated against TEAMS tables.
- Processing functions automatically suspend erroneous transactions until identified problems are resolved or overridden.
- Interface transaction operator IDs are assigned to individuals, who are responsible for monitoring that automated transactions sent from those interfaces are successfully processed through TEAMS.
- Control reports are automatically generated from TEAMS that show the status of interface file processing and automated emails are sent for some interfaces when there is a problem with the interface so they may be corrected.
- ODOT personnel perform periodic reconciliations to verify the accuracy of TEAMS accounting data that has interfaced to the Statewide Financial Management Application (SFMA) and to validate all transactions were properly recorded in SFMA and TEAMS.
- ODOT personnel perform additional reconciliations to ensure TEAMS data agrees to Oregon State Treasury account balances and that data from other information systems associated with material financial accounts are appropriately recorded in TEAMS.
- ODOT staff periodically monitor expenditure transaction batches to ensure timely processing.
- ODOT has developed FASMs to govern changes to master tables and assigned responsibility for table maintenance to Financial Services, which has delegated responsibility for some tables to other business areas.
- FASMs prescribe procedures for requesting, approving, validating, authorizing and documenting changes to system tables to help ensure only approved and reviewed table changes are made, though some of these standards include outdated controls.

These and other controls provide reasonable assurance that transactions processed through TEAMS are complete, accurate and valid. However, ODOT could improve some processes for updating TEAMS reference tables:

- Several table maintenance FASMs, including 2.3, 2.4, and 2.8, are outdated and refer to groups that have been renamed or reorganized and to control activities that no longer occur. For example, a "TEAMS Structure Group" that is stated in the standards to be responsible for reviewing TEAMS data elements is no longer an active group.
- There are differing expectations between business units in terms of documentation required for table updates. While all units require some form of documentation for new items added to a table, some units indicated changes to existing records may not be supported through documentation, as requests to change them may occur based on a phone call or internal analysis.
- The Agreement table and Expenditure Account tables may be modified by individuals having "self-authorization" authority, meaning they both enter and release an addition or modification to a table entry. For these tables, there is little or no monitoring to detect if unauthorized table changes are being made outside of established procedures, or if additions or changes match what was intended. While per standards process owners are responsible for maintaining the integrity of the portions of tables for which they are responsible, if this does not occur improper coding could result in incorrect coding of financial transactions or improper billing.

These weaknesses illustrate that ODOT could strengthen some table maintenance controls, including updating and improving related documentation. However, we concluded these issues do not rise to the level of a significant deficiency or material weakness at this time.

Objective 2 – Change management processes are designed to ensure only authorized changes are made

Generally accepted computer control standards dictate formal change control procedures should be documented and enforced to minimize the corruption of information systems. In addition, documented procedures should exist to declare, assess, approve preliminarily, and record an emergency change. Specifically, procedures should verify that emergency changes are appropriately assessed and authorized after the change.

ODOT's procedures for managing modifications to TEAMS include formal request, evaluation, and authorization of proposed changes; business user testing of modifications; and approval of completed code changes prior to promoting them to production. Additionally, ODOT has appropriately restricted alter and update access to production regions to assigned librarians and system IDs.

These procedures address important aspects of managing changes to system code. However, FASM 2.2 for financial systems request for work (RFW) does not reflect current expectations and procedures for the RFW process for TEAMS.

In addition, during part of Fiscal Year 2022 ODOT did not follow a monitoring process for emergency fixes (EFIX) to ensure all items are removed timely from EFIX. This can be problematic because any item in the EFIX environment will run first during TEAMS production processing, and these changes have not yet undergone required testing and approval procedures required through the RFW process, due to their nature as emergency changes. As of December 2021, there were 17 items in EFIX, one of which had been in that environment since 2016 and three of which were from 2017. These items were subsequently promoted to the production environment in late December 2021, though the source code change log did not reflect this action. In March 2022, ODOT provided updated procedures to review EFIX to ensure more timely promotion of code from this environment to production.

While some documentation and procedures were lacking at the beginning of our review, ODOT took positive action to formalize and improve procedures during our review. Based on current controls in place we concluded that, if followed, procedures to manage changes to TEAMS computer code are sufficient to ensure the integrity of the system and data.

Objective 3 – Logical access controls help ensure system data is protected

Generally accepted controls indicate that entities should have prescribed processes for authorizing and approving logical access to information resources and ensuring documentation of these actions is retained for later review.

In order to access TEAMS, users need active directory access, mainframe access, and TEAMS access. Our procedures were limited to a review of TEAMS access, with some review of mainframe RACF user permissions for selected users.

We examined ODOT's procedures for requesting, approving and documenting TEAMS user accounts. We also tested to determine whether those procedures were being followed and whether controls were operating as expected.

Overall, we found ODOT's logical access control procedures provided reasonable assurance that access to TEAMS was appropriately restricted. We noted that key controls included:

- Responsibility for logical security of TEAMS was assigned to an appointed owner who makes decisions about access rights, including approving any modifications to user classes.
- A user account management process was established to support requesting, establishing, issuing, modifying, and closing user accounts using the TEAMS Security Request System.
- Mainframe passwords are required to meet basic standards per the restrictions in RACF and are required to be changed at regular intervals.
- User classes were generally designed to help ensure users only had access to transactions needed to perform their jobs.
- An automated review process is established that requires managers to revalidate the access provided to users in their section every six months.
- An automated process has been established to remove user access to TEAMS when employees are terminated or change positions through an interface with Workday.

We performed tests of several of these controls and found a few minor discrepancies. Overall, our test results demonstrated that controls are working as intended.

- Out of 407 Operator IDs (OPID) that had access modified on July 1, 2020 or later, five did not have requests for that access included in the TEAMS Security Request System. Four additional OPIDs had access granted that did not match what was requested.
- Of 287 users with access to user security classes that grant access to TEAMS revenue or expenditure transactions, 75 had not used their access during the test period of 7/1/20 – 10/22/21 and had been granted this access for at least seven months. Of these, 24 users had used other OPIDs that also granted access to revenue or expenditure transactions during the test period, but 51 had not used any of their expenditure or revenue access within the test period.
- We examined some scenarios designed to detect whether users have been granted access in line with business requirements, and whether segregation of duties is being maintained. These tests showed that central authorization authority, override authority, and security-related authority was appropriately assigned, though some central authorization users also had the ability to enter financial transactions, though this access had not been used. Our specific segregation of duties scenarios were not technically violated, though one control for designating "allowed crews" for specific user classes was outdated and no longer reflects actual restrictions in place. An ODOT manager stated that ongoing organizational changes affect crew numbers and have made maintaining this list difficult.
- The automated six-month review process functioned appropriately.
- Of 111 employees who terminated employment from ODOT from 1/1/21 – 12/22/21, nine employees did not have their TEAMS access removed within 3 business days of the termination. Of these, two took longer than 10 business days for access to be removed.

These results demonstrate that some improvements can be made to ensure access requests are properly documented and that access is restricted only to those individuals with a demonstrated need for that access. However, we concluded these issues did not represent a significant deficiency or material weakness.

Conclusion

Overall, we found that controls were implemented and operating and were sufficient to provide reasonable assurance that transactions remained complete, accurate, and valid during input, processing and output; that change management procedures ensure the integrity of system data; and that logical access controls protected TEAMS against unauthorized use, modification, damage or loss. Although there are some controls that could be strengthened, the areas of weakness we found did not present a material threat to the integrity of ODOT's financial statements.