**Zero Emission Fleet Transition Plan Template**

**Instructions:** This template is for the creation of a Zero Emission Fleet Transition Plan (Transition Plan). A Transition Plan is required by the Oregon Department of Transportation Public Transportation Division’s Mid-Cycle Discretionary Solicitation and the FTA for the Grants for Buses and Bus Facilities Competitive Program (49 U.S.C. 5339(b)) and the Low or No Emission Program (49 U.S.C. 5339(c)) for zero emission projects (e.g., zero emission vehicles or charging infrastructure).

Note: The content and language in this template are only intended as suggestions. Agencies should adapt the template to their specific goals and plans.

* The “Goal” provided at the beginning of each section describes overall purpose of the section. Contents provided in that section should address the goal.
* Plain text is suggestive and should be adapted to the agency’s goals and plans.
* *Italicized* text suggests topics that an agency may wish to address.
* Highlighted text should be replaced with relevant information.

AGENCY’s Zero Emission Fleet Transition Plan

DATE

1. **Introduction**

AGENCY has created this Zero Emission Fleet Transition Plan (Transition Plan) to meet the statutory provisions for the Grants for Buses and Bus Facilities Competitive Program (49 U.S.C. 5339 (b)) and the Low or No Emission Program (49 U.S.C. 5339 (c)) or the requirements of the Mid-Cycle Discretionary Solicitation. The Transition Plan addresses the following topics:

* Agency overview
* Long-term fleet management plan
* Availability of current and future resources
* Policy and legislation impacts on technologies
* Evaluation of current and future facilities
* Partnership with fuel provider
* Impact on workforce

The Transition Plan targets YEAR to complete the transition of our current fleet to zero-emission vehicles.

1. **Agency overview**

* *Goal: describe pertinent information that contextualizes the Transition Plan*
* *Description of location of agency*
* *Any key demographic or contextual information regarding service area*
* *Number and nature of routes (e.g., type, frequency)*

1. **Long-term fleet management plan**

* *Goal: Demonstrate that your agency has a long-term fleet management plan with a strategy for how it intends to use the current application and future acquisitions*

AGENCY is planning to transition to a zero-emission fleet by YEAR.

* *How long has the agency been planning to transition its fleet to zero-emission vehicles?* 
  + *Did this correspond with a local decision, like a Transit Master Plan or energy plan, etc.?*
* *What has the agency done to gather information and prepare the plan?* 
  + *Has it attended conferences or webinars? Are there documents it consulted? Has it worked with a consultant, another agency or private company (e.g., bus company, utility provider, etc.)?*
* *What steps have been taken already to implement transition?* 
  + *Was it part of a Transit Master Plan or other planning document?*
  + *Did the Transition Plan receive approval of some governing body?*
  + *What capital improvements have already been made or in process, if any?*
    - *Installation of charging equipment, upgrade of bus facility, purchase of buses, etc.*

The current request for funding is to replace the vehicle(s) used on our NAME OF ROUTE(S). *Brief explanation of route* *and why these vehicles*.

**Table 1** provides a summary of AGENCY’s targeted timeline for replacing its current fleet of vehicles.

Table 1: AGENCY Vehicle Transition Plan

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Current Fleet** | | | | | **Estimated Replacement Year and Vehicle Replacement Type** | | |
| Bus number | Year of mfg. | Veh. category useful life | Make | Model | 2023 | 2024 | … |
| 121 | 2019 | 4 yr/100k | Dodge | Van | EV-Van |  |  |
| 193 | 2013 | 5 yr/150k | Ford | E-450 |  | EV Cutaway |  |
| … |  |  |  |  |  |  |  |

1. **Availability of Current and Future Resources**

* *Goal: Demonstrate awareness of available current and future resources to meet costs for the transition and implementation and plan to secure required resources*

AGENCY estimates successful implementation of the Transition Plan will cost $XXXXX - $XXXXX.

Over the course of the transition period, AGENCY plans to transition X current vehicles from diesel gasoline to battery electric:

* *X – 35’ buses*
* *X cutaway buses*
* *Other vehicles to be replaced*

It will also work to install:

* *Up to X pantograph depot chargers*
* *X pedestal chargers*
* *Upgrade our utility service*
* *Other infrastructure upgrades*

In addition, there will be a need to purchase new tools and parts and invest in workforce training to address the needs of the new ZEBs.

* *What resources does the agency currently have available?*
  + *Local taxes*
  + *STIF formula*
  + *Etc.*
* *What resources and sources does it believe it will have going forward?*

Once AGENCY deploys ZEBs, it will be able to sell clean fuel credits through Oregon’s Clean Fuels Program. The Clean Fuels Program creates a market where providers of lower-carbon transportation fuels can earn credits based on switching from higher-carbon fossil fuels. Providers of higher-carbon gasoline and diesel must reduce their own emissions or purchase these credits to meet the program’s carbon intensity reduction goals. Electricity supplied to ZEVs is eligible to earn credits. Credits are generally awarded to the owner or operator of the charger. A credit is equal to one ton of greenhouse gases reduced and is calculated based on the difference between the carbon intensity of electricity and either gasoline or diesel, and the volume of electricity dispensed from the charger. In 2022, credits sold for approximately $125 per MTCO2e or approximately $13,000 per 35 ft. ZEB.

* *What is the funding gap between current and expected resources and needed funding for transition?*
* *Describe in 2-3 sentences planning or other efforts underway to secure additional resources.* 
  + *For instance, are you considering applying for STIF Discretionary funding? Will you apply for* [*DEQ’s Diesel Emission Mitigation Grant*](https://www.oregon.gov/deq/aq/programs/pages/diesel-grants.aspx)*? Others?*

To achieve its goals, AGENCY projects it will require $XXXX in additional funding to cover the procurement of vehicles and infrastructure over the transition period.

AGENCY has identified the following sources of funding to address our funding needs. We plan to apply for funding in the years in parentheses:

* State Transportation Improvement Fund Discretionary Fund (2025-2027)
* Diesel Emission Mitigation Grants (2024, 2025, 2026)
* Grants for Buses and Bus Facilities Competitive Program (XXXX, XXXX, XXXX)
* Low or No Emission Program (XXXX, XXXX, XXXX)
* Etc.

1. **Policy and legislation impacts on technologies**

* *Goal****:*** *Demonstrate awareness of policy and legislation impacting relevant technologies, and where applicable that plan takes these impacts into account*

This section describes state and local policies and legislation that impacts AGENCY’S fleet transition plans.

State

* ­*Describe any state policies or legislation that you believe will help or hinder the adoption of ZEBs.*

In 2017, Governor Kate Brown issued Executive Order 17-21. The Order directs state agencies to accelerate zero emission vehicle adoption in Oregon to reduce greenhouse gas emissions. The Oregon Department of Transportation (ODOT), the Oregon Department of Energy (ODOE), The Public Utility commission (PUC), Department of Environmental Quality (DEQ), and the Department of Administrative Services (DAS) coordinated to achieve goals outlined in the Executive Order. One of the goals identified is “providing partners with information on electric vehicle use and functionality” which has led to the creation of the Transit Electrification Guide. This has been a valuable resource in our planning process and moving towards adopting ZEBs for our transit fleet needs.

In 2021, the Department of Environmental Quality adopted California’s Advanced Clean Trucks rule, which requires manufacturers of medium- and heavy- duty vehicles to sell a certain percentage of zero emission vehicles beginning with the 2024 vehicle model year. That percentage increases over time. By transitioning its fleet to zero emission buses, AGENCY will be helping to support the implementation of the Advanced Clean Trucks rule*.*

The Oregon Department of Transportation is in the process of developing additional targeted investments in transit electrification and medium and heavy-duty charging infrastructure as well as technical assistance to support fleet electrification.

Local

* *Describe any local policies or legislation that support or hinder the implementation of relevant technology the applicant is looking to implement.*
* *Describe any future policy or legislation that the agency is considering that will support implementation.*

1. **Evaluation of current and future facilities**

* *Goal: Demonstrate that you have evaluated your existing facilities and planned for future facilities and their relationship to the technology transition*

This section provides an overview of the timeline and cost estimates for the infrastructure associated with AGENCY’s transition to battery electric buses. Scaling to a fleetwide battery electric bus deployment requires substantial infrastructure upgrades and a significantly different approach to operations.

* **­***Provide brief description of existing facilities (e.g., vehicle depot and maintenance)*
* *Describe necessary upgrades (new construction or renovation of existing structures) to integrate technology (e.g., charging, parking, maintenance)*

Planning and design work is necessary once specific charging equipment has been selected. **Table 2** provides an estimated installation timeline and costs for charging equipment. This assessment breaks the infrastructure scope of work into three key project types: facility and power upgrades, charging equipment (charger and dispensers) and installation, and tools.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Estimated expenditure in 5-year increments** | | |
| **Expenditure** | 2025 | 2030 | 2035 |
| Facility and power upgrades |  |  |  |
| Charging equipment and installation |  |  |  |
| ZEB tools |  |  |  |
| **Totals** |  |  |  |

1. **Partnership with fuel provider**

* *Goal: Because your fleet transition may require upgrading existing electric infrastructure, demonstrate that you have partnered or will partner with electricity provider or alternative fuel provider to address your needs*

This section describes AGENCY’S partnership with its electricity utility provider.

* *Describe partnership of the applicant with the utility or alternative fuel provider.*
* *If available, include letters of support, contract information, communications, etc. with the fuel/energy provider.*
* *Describe ongoing coordination with providers and plans for integration/cooperation.* 
  + *Provide timeline of any planning or upgrades*
* *If application, based on the size of the vehicle fleet explain that no partnership is needed.*

AGENCY recently completed the application for Portland General Electric’s Fleet Partner Program, which will assist AGENCY through this transition process. The Fleet Partner Program is a custom incentive and turnkey design and construction service that helps transit agencies save money and reduce the administrative burden in the transition to electric fuel. PGE will work with AGENCY to complete a charging analysis, fuel cost and clean fuel credit analysis, site assessment, and preliminary design and cost estimate of charging infrastructure. Pending the outcome of this planning, PGE may also make improvements to the electricity supply infrastructure as well as update AGENCY’s panel and provide wiring to vehicle parking. Working with PGE will help to ensure that AGENCY has the necessary charging infrastructure installed in preparation for reception and deployment of electric vehicles.

1. **Impact on workforce**

* *Goal: Examine the impact of the transition on the applicant’s current workforce by identifying skill gaps, training needs, and retraining needs of the existing workers of the applicant to operate and maintain zero-emission vehicles and related infrastructure and avoid the displacement of the existing workforce.*

This section examines the impact of the transition on our current workforce. It identifies skill gaps, training needs, retraining needs for existing workers and maintain zero-emission vehicles and related infrastructure. AGENCY’S goal is to complete the transition while retaining its existing workforce.

* *Describe usage of the Workforce Evaluation Tool -* [*ZEB Transition Plan (transportcenter.org)*](https://www.transportcenter.org/zeb)
* *Describe coordination efforts with existing employee representation and/or members.*
* *Describe employee retention and agency workforce planning strategies.*
* *Identify of type of training needed and training provider.*