

How to Fund an Electric Bus?

July 7th, 2021



Brought to you by the Electric Bus Learning Project
[Envirocenter.org/Electric-Bus](https://envirocenter.org/electric-bus)

Electric Bus Learning Project

- Online forums
- Trainings
- Personalized consultations
- Site visits
- Free of charge
- Peer-to-peer support network
- Support in finding funding

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Next Up

Oregon Clean Fuels Program and Advanced Crediting



Cory-Ann Wind
Oregon Clean Fuels Program Manager
Oregon Department of Environmental Quality



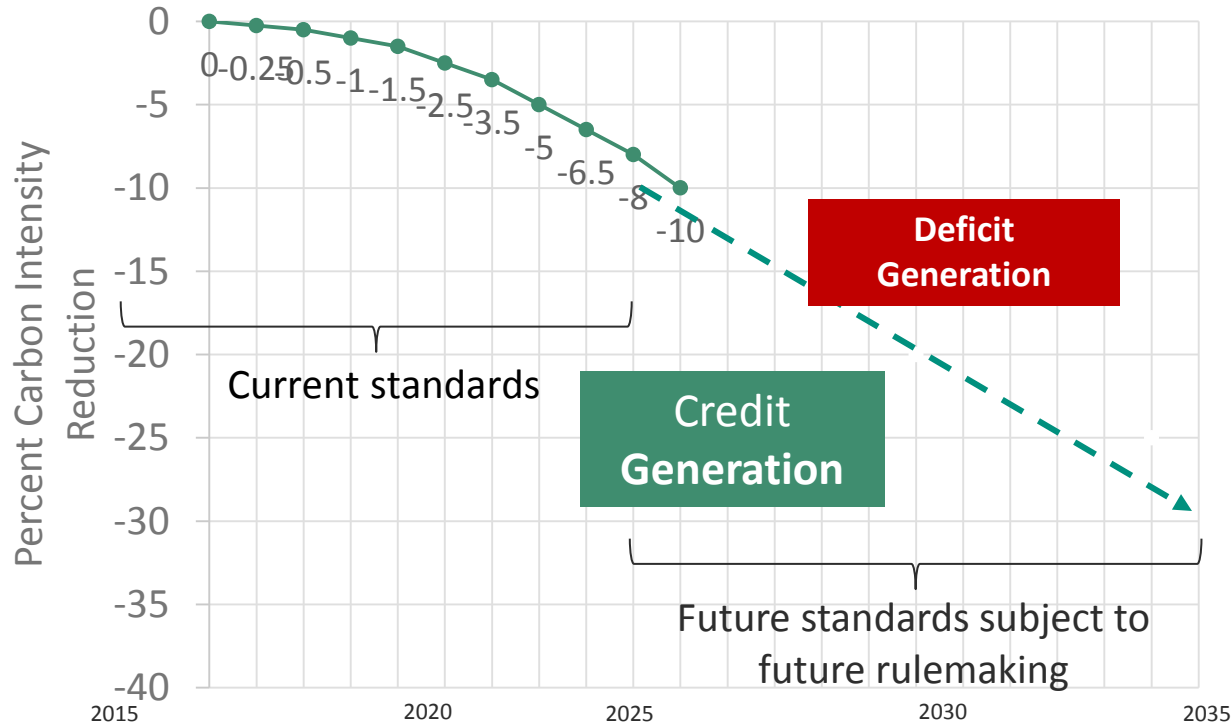
Clean Fuels Program Update

Electric School Bus Funding in Oregon

July 7, 2021

Cory-Ann Wind, Clean Fuels Program Manager

Clean Fuels Program in a Nutshell



Mandatory Fuels

- Gasoline
- Diesel
- Ethanol
- Biodiesel
- Renewable diesel

Voluntary Fuels

- Fossil and renewable CNG
- Fossil and renewable LNG
- Fossil and renewable LPG
- Sustainable aviation fuel
- Electricity
- Hydrogen

Types of Clean Fuels and Applications



Ethanol
Biodiesel
Renewable diesel
Fossil and renewable CNG
Fossil and renewable LNG
Fossil and renewable LPG
Sustainable aviation fuel
Electricity
Hydrogen

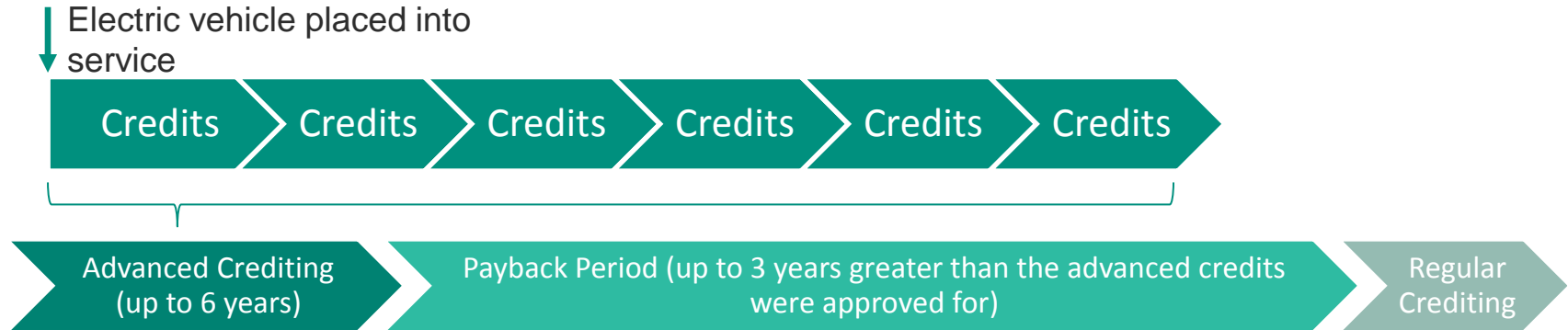


Credit Generators for Electricity

	Base Credits	Incremental Credits
Public, workplaces, fleets, and multi-unit dwellings	Owner or operator of the charger	Owner or operator of the charger
Transit agencies	Transit agency	Transit agency
Forklifts, transportation refrigeration units, cargo handling equipment, ocean-going vessel shorepower	Owner/operator/service provider	Owner/operator/service provider
Residential	Electric utility	Electric utility
	Backstop Aggregator	Incremental Aggregator

Advanced Crediting

Regular credit generation occurs on a quarterly basis when the credit generator submits their quarterly report about how much electricity was dispensed from a charger.



Advanced crediting is when DEQ grants up to 6 years' worth of credits when the first electric vehicle is placed into service.

Advanced Crediting: Example

In this example, the Newberg School District has received a grant from PGE for a new electric school bus and is interested in applying for advanced credits to help buy more. DEQ will work with the school district as it develops its application.

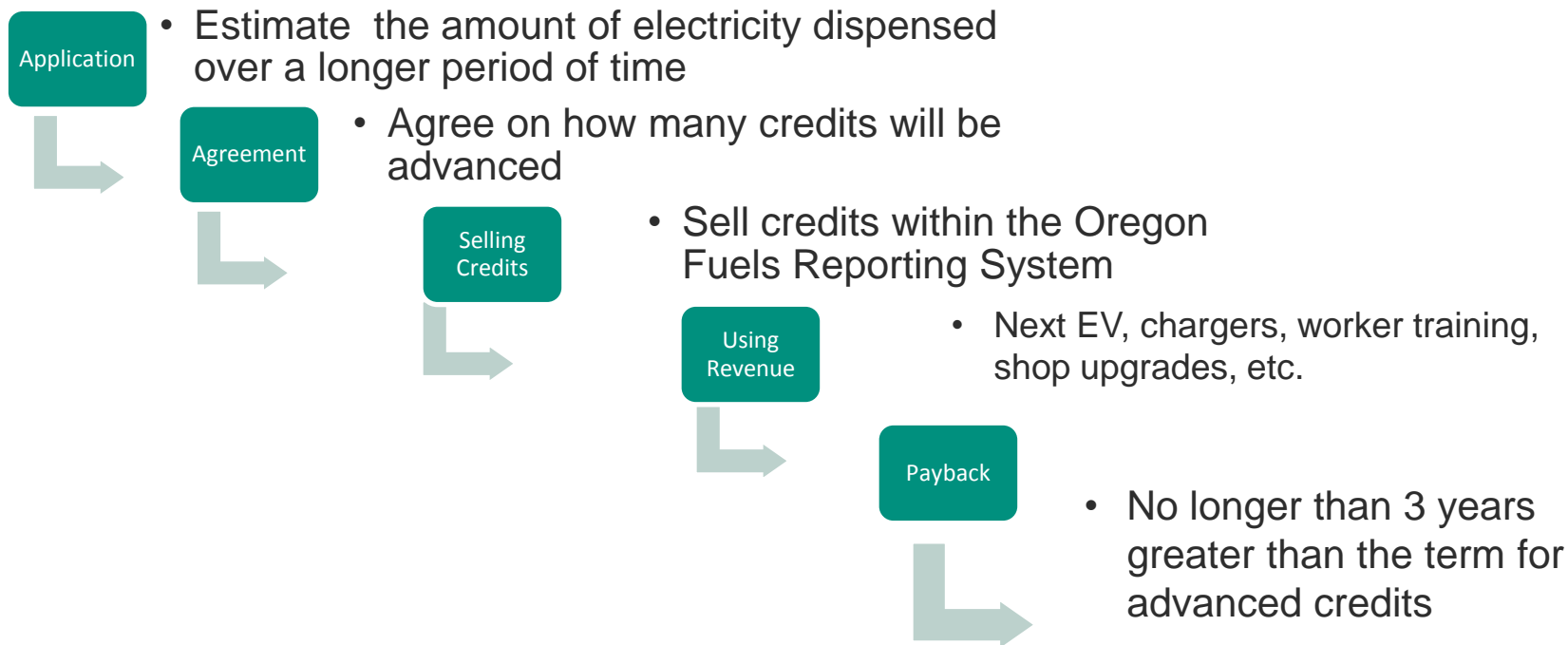
Year	Estimated			Revenue if credits sold @ \$125
	Miles	kWh	Credits	
2022	15,000	27,900	36	\$ 4,498.64
2023	15,000	27,900	35	\$ 4,406.36
2024	15,000	27,900	35	\$ 4,314.08
2025	15,000	27,900	34	\$ 4,191.04
2026	15,000	27,900	34	\$ 4,191.04
2027	15,000	27,900	34	\$ 4,191.04
			Total:	\$ 25,792.19

Advance Crediting: Who is Eligible?

- Political subdivisions of the State of Oregon
- Tribes
- Public Transit Agencies
- School Districts
- Companies under contract to provide services to a political subdivision of the State of Oregon or an Oregon School District



Advance Credits: Process



Next Up

Oregon Department Of Education



Brock Dittus
Operations and Policy Manager
Oregon Department of Education



OREGON
DEPARTMENT OF
EDUCATION

Oregon achieves . . . together!

State School Fund

Transportation Grant

Brock Dittus

Oregon Department of Education

The Grant

- Estimate of Membership and Revenue > Reconciled with Actual Financial data and Pupil Transportation reports.
- Largest Grant in the state school fund
 - \$235,663,797 - 19-20
 - 70, 80, 90 % reimbursement based on Cost per ADMr



Life-cycle of Transportation Grant

Prelim Est. December 2019	Jul-20	August	September	October	November	December	Jan-21	February	March	April	May-21
December of the previous year Estimate of membership and Revenue	Start paying based on estimate from Dec 2019							Updated with December 2020 EMR			
	Jul-21	August	September	October	November	December	Jan-22	February	March	April	May 2022
			20-21 SY Transporta tion reports Due				20-21 Annual Financial audit due				Final Grant for 20-21 SY paid based on Annual Financial data and Transportation Report

Estimate of Membership and Revenue data collection

3. Estimate of Net Transportation Cost	Current Year 2018-19	Projected 2019-20
including bus/garage allowable depreciation and net of transportation receipts and non-reimbursable mileage	40000	40000

Pupil Transportation reports

OREGON DEPARTMENT OF EDUCATION
Public Service Building
255 Capitol Street NE
Salem, OR 97310-0203

SEP 06 2019

Office of Educational Support Services
School Finance, Data & Analysis

**BUS AND GARAGE DEPRECIATION
SCHEDULE AND MILEAGE REPORT**

Coos
Bandon SD 54

Year Ending June 30, 2019

Please send the completed original to the Oregon Department of Education by September 3.

Part I All districts must complete Part 1 questions a and b.

These figures will be used to reduce the State School Fund, Annual Transportation Grant. Please include only miles recorded in Fund 100-General Fund, Function 2550-Student Transportation Services. Exclude miles reimbursed through revenue recorded in Fund 100-General Fund, Function/Source 1400-Transportation Fees.

The total non-reimbursable miles (e.g. activity/sports trips, service within 1 and 1.5 mile limit) reported in:

- a. Vehicles designed for a capacity of 20 or less 4107.00 miles @ \$1.31 = 5,380.17
b. Vehicles designed for a capacity of 21 or more 19,504.00 miles @ \$2.62 = 51,100.48

Part II

Listed below are district-owned garages and student transportation vehicles according to last year's report that have not been fully depreciated. Please delete items disposed of and add items acquired and received during fiscal year. Do not list any vehicle used predominantly for non-reimbursable purposes:

Fleet No.	License Number	Type of Asset	Bus Body	Bus Chassis	First Year Reported	Value for Depreciation Purposes	Depreciation Already Allowed up to June 30, 2018	Allowable Depreciation 2018-2019
61	E245375	Bus	2006	IC	2011	\$72,200.00	\$57,760.00	\$7,220.00
51	E254351	Bus	2010 Collins	Chevrolet	2012	\$52,801.00	\$36,960.70	\$5,280.10
100	E254359	Bus	2012 Bluebird	Bluebird	2012	\$97,486.00	\$68,240.20	\$9,748.60
101	E254360	Bus	2012 Bluebird	Bluebird	2012	\$97,486.00	\$68,240.20	\$9,748.60
104	E263598	Bus	2015 IC	IC	2015	\$113,000.00	\$45,200.00	\$11,300.00
105	SC08794	Bus	2015 IC	IC	2017	\$113,000.00	\$22,600.00	\$11,300.00
106	SC08923	Bus	2015 Bluebird	Bluebird	2019	\$83,000.00	\$0.00	\$8,300.00

Total depreciation for items listed:

\$62,897.30

Break down ADMr

Example: $\$500,000 / 250 \text{ ADMr} = \$2,000$

Top 20 districts with the highest costs per ADMr receive 90%

Next 20 receive 80%

The 157 remaining districts receive 70%

Transportation Grant

2017-2018 Transportation Grant

Salaries	=	\$277,479.00
Payroll	=	\$166,287.00
Purchased Services	=	\$28,462.00
Supplies	=	\$91,643.00
Other	=	\$46,279.00
Garage Depreciation	=	\$0.00
Bus Depreciation	=	\$111,184.00
Fees Collected	=	\$0.00
Non-Reimbursable	=	(\$82,688.00)
Net Eligible Trans. Expend.	=	\$638,646.00
Trans per ADMr Rank.	43%	Transportation Reimburs. Rate 70.00%
Grant (Rate* Net Eligible Expend)	=	\$447,052.20

Financial
Audit data

Transportation
reports

Questions

State School Fund or Transportation Grant Questions:

Adam.Krein@ode.state.or.us

503-947-5678

Transportation reports, Form 581-3171 Bus and Garage Depreciation Schedule and Mileage Reports Questions:

Brock.Dittus@ode.state.or.us

buslicense@ode.state.or.us

503-947-5724

Next Up

Electric Mobility Grant – Pacific Power



Esther Pullido
Project Manager
Pacific Power

Electric Mobility Grant



Electric Vehicle Programs

Outreach and Education Programs

- Online [EV Cost Calculator](#)
- Chargeway Beacon deployment
- Technical Assistance
- Pop-ups/tabling
- Ride and Drives



Pacific Power Public Charging Stations

30 Public Fast Charging and Level 2 Stations:

- Bend
- Klamath Falls
- Madras
- Mill City
- Otis



Grant Funding

Grant funding to non-residential customers:

- Infrastructure Charging Grant
- E-Mobility Grant
- Matching funds for external grants
- CRuSe rural carsharing in Hood River



Electric Mobility Grant Funding Source

- The Electric Mobility Grant is funded by the sale of Oregon Clean Fuels Program credits, which Pacific Power aggregates on behalf of residential customers who charge their electric vehicles at home
- The goal of the Oregon Clean Fuels Program is to reduce greenhouse gas emissions from Oregon's transportation fuels



Projects must benefit residential customers as a class

Available Funding



Estimated **\$650k**
in grant funding
will be available



Funding awards
will cover eligible
costs associated
with studying,
planning,
promoting, or
deploying electric
transportation
technology and
projects

Eligibility

Pacific Power customers in Oregon on a non-residential electric service rate are eligible.

Specifically aimed to support:

- Non-profit organizations
- Government entities
- Small Businesses



Timeline

Step 1: Application Solicitation	Applications open June 1st
Step 2: Evaluation	Applications due August 31, 5pm PDT
Step 3: Selection and Notification	Applicants notified of grant award decision in October

Technical Assistance



For infrastructure projects we can help you evaluate your options and costs with an on-site feasibility analysis.

Program Steps:

1. Submit application
2. Schedule a site visit
3. Receive technical assistance report

Electric Vehicle (EV) Homepage

The screenshot shows the Pacific Power website's EV homepage. At the top left is the Pacific Power logo. To its right are navigation links: MY ACCOUNT, OUTAGES & SAFETY, SAVINGS & ENERGY CHOICES (which is underlined), a search icon, a phone icon, a mail icon, and a SIGN IN link. On the left side, there is a 'Savings & Energy Choices' menu with the following items: Home energy choices, Business energy choices, Renewable energy, Electric vehicles (highlighted in light blue), Customer generation, and Oregon Time of Use. The main content area features the heading 'ELECTRIC CARS ARE READY to go' in a mix of sans-serif and script fonts. Below this is a paragraph: 'More drivers are making the switch to plug-in electric cars to save money on fuel costs and contribute to a healthier environment.' Underneath the paragraph is a blue button that says 'CALCULATE YOUR SAVINGS'. To the right of the text is a photograph of a family (a man, a woman, and a child) loading items into the open trunk of a dark-colored SUV parked in a driveway. A bright sun flare is visible in the upper left of the photo.

PACIFIC POWER

MY ACCOUNT OUTAGES & SAFETY SAVINGS & ENERGY CHOICES 🔍 ☎️ ✉️ SIGN IN


Savings & Energy Choices

- Home energy choices
- Business energy choices
- Renewable energy
- Electric vehicles**
- Customer generation
- Oregon Time of Use

ELECTRIC CARS ARE READY
to go

More drivers are making the switch to plug-in electric cars to save money on fuel costs and contribute to a healthier environment.

CALCULATE YOUR SAVINGS



www.pacificpower.net/ev

Questions



Contact:
plugin@pacificpower.net

Next Up

Diesel Emissions Mitigation Grant



Angela Parker
Air Quality Planner
Oregon Department of Environmental Quality



Diesel Emissions Mitigation Grant Program

Angela Parker
Air Quality Planner

Diesel Emissions Mitigation Grant Program

Background



Diesel Emissions Mitigation Grant Program

School Bus Update



Diesel Emissions Mitigation Grant Program

Program Overview



Maximum reimbursement amounts (with exceptions) are:

- 100% for public sector projects and exhaust control retrofit
- 75% for all-electric equipment replacement
- 40% for engine repower
- 25% for private equipment replacement





Diesel Emissions Mitigation Grant Program

Air Quality Project Detail

Replace a publicly owned diesel school bus with a new zero emission electric vehicle

- Max reimbursement: 100% of equip.
- Can match with other funding sources
- New equip. must be equivalent to old
- Old equip. must be based in Oregon
- Project must reduce diesel emissions





Diesel Emissions Mitigation Grant Program

Application Process

Applicant Information

- Who is applying for a grant funded project?

Project Description

- What type of project will reduce diesel emissions in Oregon?
- When will the project be complete?

Diesel Equipment Details

- What type of diesel equipment is going to be addressed?

Project Costs

- How much does the project cost?

Location Information

- Where will the air quality be improved when the project is complete?



Diesel Emissions Mitigation Grant Program

Application Review Process

Among proposed projects that are eligible for funding, DEQ will give preference to projects that:

Support compliance w/ HB 2007 or contract specifications related to emissions standards for diesel engines

The applicant is a Disadvantaged, Minority, Women, or Emerging Small Business (DMWESB) or Service Disabled Veteran Business (SDVB)

Involve the replacement, repower or retrofit of equipment w/at least three years of remaining useful life

Support the utilization of fuels that generate credits under the clean fuels program



Diesel Emissions Mitigation Grant Program

Application Review Process

Among proposed projects that are eligible for funding, DEQ will give preference to projects that:

Benefit owner/operators of only one heavy-duty truck w/ fleet registered in Mult., Clack. or Wash. Co.

Benefit small fleets

Involve the retrofit of concrete mixer trucks or trucks that are used for the transportation of aggregate

Reduce diesel emissions in Oregon with the most cost effective projects

Reduce diesel emissions in areas of the state with the highest diesel emissions, highest vulnerable populations, and the highest population density.



Diesel Emissions Mitigation Grant Program

Schedule

Estimated dates of grant application and deadlines, subject to change based on the timing and availability of funds and the schedule of implementation tasks.

Grant program opens for applications	6/30/2021
Grant program closes for applications	8/31/2021
Grant awards announced	11/1/2021
Funding for projects becomes available	1/15/2022

DEQ has published a comprehensive user guide to support applicants. Staff will provide technical assistance throughout the grant process to help everyone participate.



Diesel Emissions Mitigation Grant Program

Funding Totals and Timeline for Implementation

Today {

Date Range	Activity	Fund Allocation	Funds Available
Oct. 2, 2017	VW Settlement	\$72.9M	\$72.9M
2017-2027	15% Admin.	(\$10.9M)	\$62M
Aug. 15, 2017	SB 1008	(\$18-22M)	\$40 - \$44M
Aug. 9, 2019	HB 2007	(Remaining VW Funds)	\$40 - \$44M
2021	Grant Availability #1	(\$8M)	\$32 - \$36M
2022	Grant Availability #2	(\$8 - \$8.8M)	\$24 - \$26.4M
2023	Grant Availability #3	(\$8 - \$8.8M)	\$16 - \$17.6M
2024	Grant Availability #4	(\$8 - \$8.8M)	\$8 - \$8.8M
2025	Grant Availability #5	(\$8 - \$8.8M)	\$0
2026	Potential Grant Avail.	Based on remaining funds	
2027	Potential Grant Avail.	Based on remaining funds	



Diesel Emissions Mitigation Grant Program

Program Website

<https://www.oregon.gov/deq/aq/programs/Pages/Diesel-Grants.aspx>

Technical Assistance

dieselgrants@deq.state.or.us

Next Up

Public Purpose Charge/ SB1149



Christie Sphoon
School Programs Lead
Oregon Department of Energy

Oregon Department of **ENERGY**

Public Purpose Charge Schools Program – Electric School Bus Funding

Christie Sphoon
July 2021



PUBLIC PURPOSE CHARGE (SB 1149) SCHOOLS PROGRAM

Public Purpose Charge =
3% on Portland General Electric and Pacific Power customers' utility bills

This month's charges (Turn over for details)

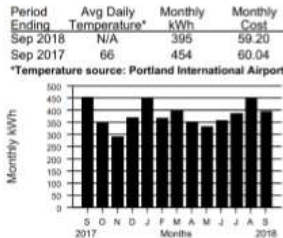
Meter # 250627241N, Schedule 07
Energy Charges (395 kWh)
Adjustments

Total Taxes and Fees
Current Energy Charges

57.73
1.66 CR
56.07
3.13
59.20

Your energy use

Meter # 250627241N
Schedule 07 (residential rate)
Service Period **Meter Reading**
09/12/18 37113
08/13/18 36718
30 days of service 395 kWh



Details of this month's charges

City of Portland Tax (1.5%) 0.81
Multnomah County Tax (0.027%) 0.01
Low Income Assistance 0.69
Public Purpose Charge (3%) 1.62
Subtotal - Taxes and Fees **3.13**

- School Districts receive the first 10%
- Energy Trust of Oregon receives just under 74%
- Oregon Housing and Community Services receives just over 16%

PUBLIC PURPOSE CHARGE (SB 1149) SCHOOLS PROGRAM



Eligible Facilities:

- K – 12 Educational Facilities
 - Owned by School District
 - Within PGE or Pacific Power electric territory

Non-Eligible Facilities:

- New K – 12 Educational Facilities (within first 2 years)
- Administrative Facilities
- Facility/Maintenance Buildings

PUBLIC PURPOSE CHARGE (SB 1149) SCHOOLS PROGRAM SUMMARY

# of Eligible School Districts:	110
# of Eligible Schools:	~ 825
Average Annual SB 1149 Funds:	\$8 million
SB 1149 Funds Revenues 2002 to June 30, 2019:	Just over \$137 million
SB 1149 Expenditures 2002 to June 30, 2019:	Just over \$125 million

PUBLIC PURPOSE CHARGE (SB 1149) SCHOOLS PROGRAM

Effective January 1, 2020, school districts may use Public Purpose Charge funds to complete a fleet audit, purchase or lease zero-emissions vehicles, including buses, and purchase or install electric vehicle charging stations.

Fleet Audits, Electric Vehicles and Charging Stations

[www.Oregon.gov/energy/energy-Oregon/pages/Public-Purpose-Charge-\(SB-1149\)-Fleet-Audits-Electric-Vehicles-and-Charging-Stations.aspx](http://www.Oregon.gov/energy/energy-Oregon/pages/Public-Purpose-Charge-(SB-1149)-Fleet-Audits-Electric-Vehicles-and-Charging-Stations.aspx)



PUBLIC PURPOSE CHARGE (SB 1149) SCHOOLS PROGRAM

- * Discuss internally with School District Facility Manager and Business Manager if the School District has already allocated or spent out Public Purpose Charge funds on energy measures within the schools
- * Complete and Submit Fleet Audit Spreadsheet

Instructions

Public Purpose Charge (SB 1149) Schools Program

Read Audit Web Address

Updated: June 2017

This spreadsheet is provided for use by school districts to track fleet audit results for the Public Purpose Charge (SB 1149) Schools Program. The audit results are used to determine if the school district is eligible for the Public Purpose Charge (SB 1149) Schools Program. The audit results are used to determine if the school district is eligible for the Public Purpose Charge (SB 1149) Schools Program.

School District Audit Log:

Please provide the school district's address, school district contact information, and school district information (if applicable) in the space provided.

Energy Expenditure and Source Log:

Please provide the school district's energy expenditure and source information in the space provided. Please include any fuel and electricity for all vehicles.

Building Transportation Fuel Log:

Please provide the school district's building transportation fuel audit for the year in the space provided. Please include any fuel for the school district's building transportation fuel audit for the year in the space provided.

Appliances Inventory Log:

Please provide the school district's appliances inventory audit for the year in the space provided. Please include any appliances for the school district's appliances inventory audit for the year in the space provided.

Charging Station Inventory Log:

Please provide the school district's charging station inventory audit for the year in the space provided. Please include any charging stations for the school district's charging station inventory audit for the year in the space provided.

Bus Inventory Log:

Please provide the school district's bus inventory audit for the year in the space provided. Please include any buses for the school district's bus inventory audit for the year in the space provided.

Public Purpose Charge (SB 1149) Schools Program

Energy Expenditure and Source Log

Building Transportation Fuel Log

Appliances Inventory Log

Charging Station Inventory Log

Bus Inventory Log

Public Purpose Charge (SB 1149) Schools Program

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Public Purpose Charge (SB 1149) Schools Program

Energy Expenditure and Source Log

Building Transportation Fuel Log

Appliances Inventory Log

Charging Station Inventory Log

Bus Inventory Log

PUBLIC PURPOSE CHARGE (SB 1149) SCHOOLS PROGRAM

* Complete and Submit Form for
Vehicle/Charging station Type

* Lastly, submit Confirmation of
Purchase/Lease to ODOE



Electric Bus and Bus Charging Station Form
Public Purpose Charge (SB 1149) Schools Program

CONTACT INFORMATION
School District:
Contact Person and Title:
Mailing Address:
Phone:
E-mail:

Form Requested By (if other than SB 1149 contact):
Organization/Title:
Contact Person and Title:
Mailing Address:
Phone:
E-mail:

Has form ever been completed and submitted to ODOE?
If yes, then please see form audit details on [SB 1149 Schools Program website](#)

Electric Bus:
Will this Electric Bus be used for school bus or school transportation of students? If no, then please work with the Oregon Department of Education on any other regulatory requirements for student transportation. [DOE contact information](#)

1. Only fill out this section if requesting SB 1149 funds for electric bus(es)

2. Number of buses being requested for SB 1149 funds reimbursement

3. Details on bus(es) requested

4. If leasing any buses, provide length of lease term

Bus	Make	Model	Type	Year	Delivery Date (MM/DD)	Total Range (miles)	Cost	Reimburse at 100%
1								
2								
3								
4								
5								
6								



Page 2

PUBLIC PURPOSE CHARGE (SB 1149) SCHOOLS PROGRAM

Public Purpose Charge (SB 1149) Funds for Electric Buses and Bus Charging Stations

- SB 1149 eligible amounts are not considered approved for reimbursement until after the School District has completed the fleet audit, the Electric Bus and Bus Charging Stations Form and submitted receipts and final cost documentation requesting reimbursement to ODOE.

Bus Chargers

- Up to 100% of charger cost to the School District for dedicated units to electric bus fleet minus any other grants or incentives

Electric School Buses

- Type A Buses – up to \$250,000 per bus.
- Type C/D Buses – up to \$300,000 per bus
Not to exceed 100% of the total cost minus any other grants or incentives

School Bus Cost Comparison Tool - *Coming Out Soon!!!*



PUBLIC PURPOSE CHARGE (SB 1149) SCHOOLS PROGRAM

Thank You!



Schools Program Contacts:

Christie Sphoon, Christie.l.sphoon@energy.Oregon.gov, (503) 373-7430

Tracy Richardson, Tracy.richardson@energy.Oregon.gov, (503) 373-2294

Panel Discussion/ Q&A

Please ask your questions in the
Q&A panel on your Zoom window



What is Next?

- Recording and slides
- Future events
- One on One support
- Site visits

Alison Wiley

Project Manager

Western and Southern Oregon

541-295-0255

alison@electricschoolbus.org

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Project Coordinator

Central and North East Oregon

425-765-2602

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